



Qualifications and
Curriculum Authority

A review of GCSE coursework

2006

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1. Introduction

- 1.1 Approaches to assessment send remarkably powerful messages. Some of these messages are based on evidence and others on perceptions. They are, though, all important in shaping public and professional views of the value and credibility of particular qualifications.
- 1.2 The 2005 14-19 Education and Skills White Paper gave QCA a remit to address three concerns about coursework assessment. First, ensuring that the approach to coursework in similar subjects is consistent and that it tests skills and attributes that cannot be tested by a terminal examination. Second, concerns about fairness. Third, the concern that the overall burden on students is too high even if coursework requirements for each subject are sensible when considered in isolation.
- 1.3 The White Paper also asked that QCA's review should ensure that coursework accurately assesses what it is trying to assess and leads to the same marks being awarded for the same performance.
- 1.4 In November 2005, QCA published *A review of GCE and GCSE coursework arrangements*. The focus of that review was improvements needed to coursework arrangements in present specifications. The focus of this report is the arrangements that should be put in place for new specifications that will be taught from September 2009.
- 1.5 Since GCSEs were introduced 20 years ago, the environment within which they operate has changed substantially. Our recommendations are intended to increase the value and credibility of GCSEs by making their assessment arrangements fit for the next decade.

2. Background to the GCSE

- 2.1 The timed, unseen, externally-assessed, knowledge-focused three-hour question paper provides a stereotype of academic assessment. The corresponding vocational stereotype may be the observational assessment by a trainer of practical skills demonstrated in the workplace.
- 2.2 The former may be seen by some as objective, fair and consistent – yet can be selective in what it assesses, narrow, and off-putting to many candidates. The latter may appear comprehensive in what it assesses, thorough and non-threatening – yet can be subjective, difficult to standardise and open to bias. In practice, various approaches to assessment have normally been used within each qualification type and balances are struck between such factors as validity, cost and manageability.
- 2.3 For the last century there has been a vigorous debate about the strengths and weaknesses of public examinations. Since the Secondary School Examinations Council was constituted in 1917, the system has expanded and altered to accommodate a steadily growing demand for formal, nationally-recognised qualifications. School Certificate gave way in the early 1950s to single-subject GCE examinations at ordinary (O) and advanced (A) levels. The O level examination was taken at age 16, mainly by pupils in grammar and independent schools – nationally the top 20% of the population by ability. The Certificate of Secondary Education arrived in the mid 1960s to extend examinations to the majority of pupils at secondary school. A few years later the school leaving age was revised to 16 and by the early 1980s, 90% of 16 year olds were taking at least one public examination.
- 2.4 In 1984, the government announced that a new, single system of examination at age 16, the General Certificate of Secondary Education (GCSE), was to replace the GCE O level and CSE examinations with effect from summer 1988. The main features of the new system were to be that:
- it would be administered by groups of GCE and CSE boards and monitored by the Secondary Examinations Council (SEC)
 - all syllabuses and grading procedures would be based on national criteria
 - differentiated assessment techniques would be used to enable all candidates to demonstrate what they know, understand and can do
 - grades would be awarded on a single, seven-point scale
 - criteria-related grades would be introduced as soon as practicable.
- 2.5 The set of 20 subject-specific criteria for GCSE examinations in almost all subjects included a significant element of coursework as well as external examinations. The setting and assessment of the coursework was intended by government to help teaching and learning processes by measuring and encouraging the development of important skills not easily tested in timed, written examinations, including practical and oral skills and the ability to tackle extended pieces of written work.
- 2.6 The introduction of the GCSE became one of the most successful educational innovations of modern times. The proportion of 16 year olds who stayed in full-time education was between 47% and 50% from 1982 to 1987. It then rose steadily to 73% in 1993 as the first GCSE cohorts finished their courses, before levelling off between 70% and 72% for the next 10 years.

- 2.7 Outside English, mathematics and science, most specifications remained largely unchanged from their first examinations in 1988 until the 1996 examinations.
- 2.8 1997 saw the first examinations of revised specifications based on revised subject criteria that the Schools Curriculum and Assessment Authority (SCAA) published in 1995. These criteria were influenced by a speech given in July 1991 by the then Prime Minister in which he said that the government would respond to concerns that GCSE standards were not sufficiently demanding by putting a 20% upper limit on the weighting of coursework within a GCSE. Although the subject criteria were revised again for specifications most of which were first examined in 2003, these revisions were carried out in a compressed schedule under a policy of minimal change. In many subjects, therefore, there has been little or no substantive change to the assessments since 1997.

3. Terms used in this report

Coursework

- 3.1 Coursework is either a mandatory or optional component of nine-tenths of GCSE qualifications. For the purposes of this review, coursework is taken to be any type of assessment activity undertaken by candidates in accordance with the specification during their course of study and that contributes to the final grade awarded for a GCSE qualification. Typically, though, it is an assessment activity that is set and marked by a teacher and not carried out under close supervision.
- 3.2 Coursework activities can include:
- written work and extended essays
 - project work and investigations
 - practical experiments
 - production of artefacts
 - production of individual or group performance work
 - oral work
 - statistical and numerical tasks.
- 3.3 These different activities present a variety of challenges to the quality assurance of coursework assessment including teachers setting tasks that allow candidates to demonstrate their abilities, ensuring teachers interpret mark schemes correctly, and being confident that the work submitted is the candidate's own.
- 3.4 The weighting given to coursework varies between subjects and specifications. The table below summarises the weightings given to coursework and the nature of the coursework tasks in the largest entry specification for each of the 10 most popular GCSE subjects. An asterisk indicates that a written or practical examined option can be taken as an alternative to coursework.

Subject	Coursework weighting	Coursework Task
Science (Double Award)	20%	Scientific enquiry. Assessment through teacher devised activities to assess candidates' performance in the four prescribed skill areas.
Mathematics	20%	Two pieces of work including a handling data project and a using and applying mathematics task. Some coursework must be conducted in the classroom under direct supervision and evidence of candidates' ability to respond orally to mathematics is collected.
English	40%	Two elements, assessment of speaking and listening and written assignments on reading and writing, each of which comprises half of the total coursework weighting. The teacher conducts the assessment of speaking and listening in the classroom. The reading coursework element can be oral instead of written.
English Literature	30%	Three written tasks on Drama (pre 1914), Prose (pre 1914) and Drama (post 1914). One piece of coursework may be an oral response.
Design & Technology	60%	Single integrated project consisting of a 3D product and a concise design folder. Candidates may use awarding body set project outlines or devise their own.
French	25%*	Three assignments, selected from a list given in the specification, and written in the target language totalling 400-500 words. At least one assignment must be conducted under controlled conditions.
History	25%*	Two written assignments totalling 2500-3000 words. Expectation that coursework is a taught element of the course.
Geography	25%	2500 word coursework folder based on fieldwork, which includes first hand data collection. The teacher is expected to provide advice on the topic of investigation.
Art & Design	60%	Final piece of work (drawing, ceramic etc) plus preliminary and support work. Expectation that coursework is undertaken in normal conditions of study which includes work done in class.
Religious Studies	20%	Two written assignments totalling 1000-1500 words. The teachers may set the coursework task.

Validity

- 3.5 Theories about the meaning of validity have changed substantially over the past half century. Over this period, three critical points have been identified.
- 3.6 First, there is a tendency nowadays to refer to 'validity' as the holistic perspective on quality. In previous decades, quality would tend to have been described from a variety of perspectives, without necessarily reaching an overall evaluative judgement (for example, a high level of content validity, a medium level of predictive validity, relatively low reliability, poor comparability). The essence of the overall evaluative judgement on quality concerns how accurately results reflect the characteristic (or construct) that you believe you are measuring. The holistic perspective tends nowadays to be referred to as an evaluation of 'construct validity' or simply as an evaluation of 'validity'.

- 3.7 Second, there is a tendency not to refer to ‘validity’ as the quality of an assessment instrument, but to refer to it in terms of the accuracy of inferences from results in relation to the purposes for which those results are used (for example, the validity of the inference that a grade A student has more likelihood of success in higher education than a grade D student, where grades are used to select between applicants). Validity is more than just the quality of an instrument. Validity concerns the accuracy of results which arise from the administration of an instrument in a specific context (and, by extension, the accuracy of the decisions, processes or actions that those results support).
- 3.8 Third, many writers now wish to extend the concept of ‘validity’ beyond the accuracy of results to include consequences and impacts operating the assessment system. However, there is no academic consensus over whether validity ought to refer narrowly to the accuracy of results, or broadly to consequences and impacts. In this report we interpret ‘validity’ relatively narrowly.
- 3.9 So our use of the term validity in this report:
- embraces such concepts as reliability, comparability and bias
 - refers to the accuracy of the results arising from an assessment
 - excludes the consequences and impacts of operating the assessment system.

External and internal assessment

- 3.10 The GCSE and A level code of practice defines external assessment as “a form of independent assessment in which question papers, assignments and tasks are set by the awarding body, taken under specified conditions (including details of supervision and duration) and marked by the awarding body” and internal assessment as “assessments where tasks are set and marked against criteria provided by the awarding body and subjected to external moderation”.
- 3.11 At present most GCSEs use a mixture of internal and external assessment. The analysis below splits assessments into eight categories distinguished by whether the task is:
- set by the awarding body or by a teacher
 - carried out under controlled conditions or not
 - marked by the awarding body or by a teacher.

Category	Task Set By	Conditions	Task Marked By
1	teacher	not controlled	teacher
2	teacher	not controlled	awarding body
3	awarding body	not controlled	teacher
4	awarding body	not controlled	awarding body
5	teacher	controlled	teacher
6	teacher	controlled	awarding body
7	awarding body	controlled	teacher
8	awarding body	controlled	awarding body

3.12 The term coursework is often taken to refer to category 1. Category 8 is external assessment. However, not all external assessment has to be a traditional written examination as the examples in Appendix 1 illustrate.

4. Features of different types of assessment

4.1 Coursework needs to be considered alongside external examinations. Features of external examinations include:

- only a specified maximum amount of time is available for performance, which is generally short (less than 2 to 3 hours)
- contexts for performance tend to be relatively artificial (even for problems which have notional 'real world' contextualisation such as 'Jo buys three black pens and two blue ones...')
- formats for performance tend to be constrained by a small range of question types which normally require written responses
- contexts and formats for performance tend to be identical across candidates who have very little choice over how to demonstrate their proficiency
- students normally have to perform individually and silently
- only the final product of a performance tends to be scrutinised directly
- the product of performance is evaluated by an independent scrutineer.

4.2 External examinations can be limited in providing evidence of authentic practical abilities or performance skills which necessitate:

- using the 'tools of the trade' (for example, playing an instrument within an orchestra, using various wood-working tools to make a table, conducting an extensive literature search) where this ability cannot straightforwardly be assessed during a terminal examination. (For example, because the use of the tool needs to be observed directly rather than inferred from a final product, or because obtaining evidence of tool use would require more time than is available during an external examination)
- applying the 'skills of the trade' (for example, composing a tune, choreographing a dance, designing a scientific investigation, analysing/synthesising a complex argument) where this ability cannot straightforwardly be assessed during a terminal examination. (For example, because the application of the skill needs to be observed directly rather than inferred from a final product, or because obtaining evidence of skill application would require more time than is available during an external examination). Applying the 'skills of the trade' often requires the coordination of a range of component proficiencies, for example: identifying hypotheses, or questions to solve; designing a methodology; planning and scheduling; executing the performance; evaluating the success of the performance
- group-working (for example, debating, playing as part of a sports team).

4.3 Appendix 2 illustrates and organises a range of arguments for and against coursework, indicating whether the arguments relate primarily to assessment result validation ('validity' interpreted narrowly) or to assessment system evaluation ('validity' interpreted broadly). The arguments tend to be general, interpreting coursework as any of a range of possible assessment options which do not involve external examination.

5. GCSE coursework in practice

Early issues

- 5.1 Before GCSE courses had even started, the SEC was aware of the challenges coursework could bring. Its subject committees appreciated the burdens on schools and candidates that could arise if all candidates had to produce project-style coursework in the first part of their second GCSE year. Examining groups were therefore encouraged to develop new forms of coursework that could be more evenly distributed throughout a course.
- 5.2 Nevertheless, by early 1988 the matter causing the greatest concern to SEC in relation to GCSE was that of coursework. The examining groups began to reconsider the demands for coursework which individual syllabuses made on candidates with a view to reducing them if they appeared to be excessive. At the same time SEC solicited comments from LEAs about the implications of coursework assessment. Many felt that the concerns associated with coursework would be resolved with the passing of time and the growth in familiarity and professional confidence. SEC said that "In achieving this confidence, not least among the points to be taken on board is the recognition that coursework is *work done during a course* that is assessed for examination purposes; it is not work that is additional to normal classwork and homework."

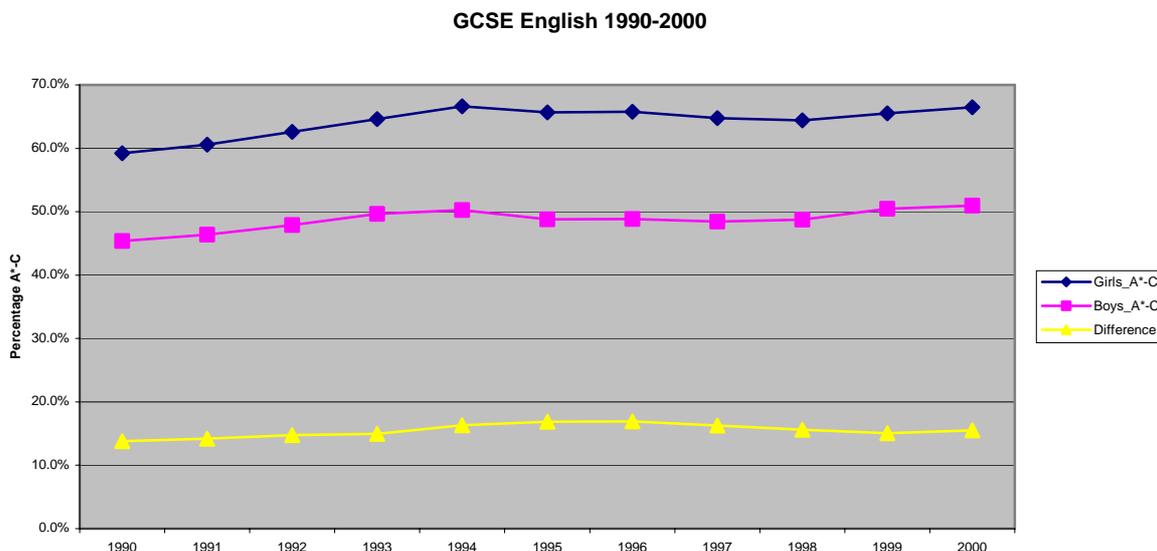
Research

- 5.3 The focus of the research literature has changed over the 20 years since GCSE was introduced with a marked shift in at least one principal theme.
- 5.4 The earliest meaning of coursework was work emanating from the course selected to represent the student response. Its newer incarnation is closer to structured assignments developed by awarding bodies.
- 5.5 This generalisation excludes some kinds of coursework that continue to be less structured but is helpful in illustrating that in broad terms there has been a move away from a selection of work to illustrate the students' achievements during their course to a more specific piece of work that has been set by the awarding body. The work in this second meaning is still undertaken over a particular period of time, and in the context of the classroom and/or at home but the emphasis has clearly shifted.

Results statistics

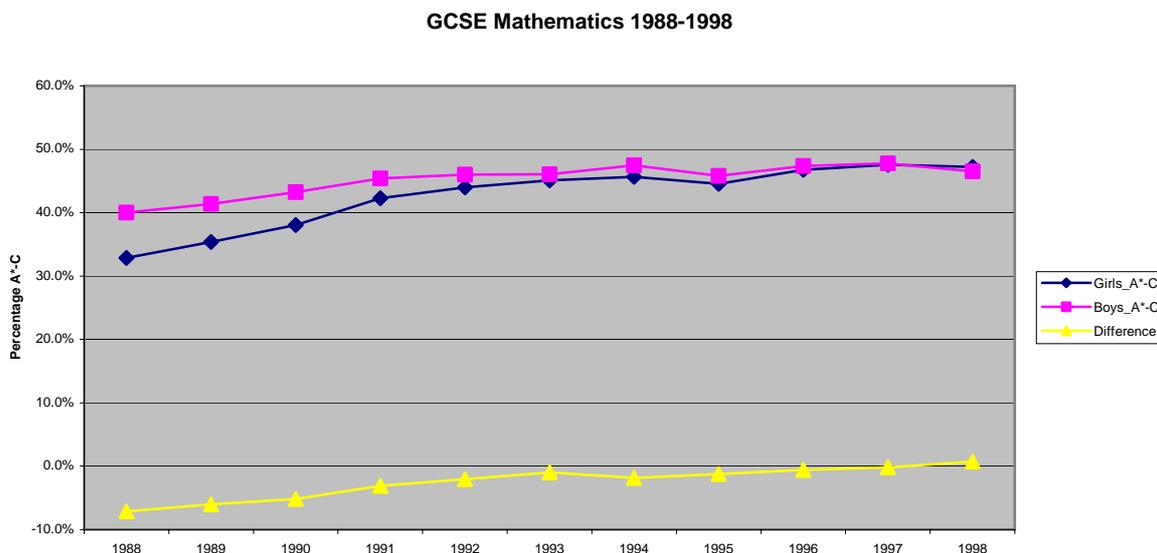
- 5.6 By looking at examples of past changes to coursework arrangements, it is possible to see what impact they had on results statistics. However, coursework weightings in individual subjects have been largely stable over the years so good examples are scarce.
- 5.7 The best example involves GCSE English. By the early 1990s about two-thirds of 16 year olds were taking GCSE English through syllabuses that had no examinations – they were 100% coursework. Following a change to the subject criteria, coursework was reduced to 40%. The first results for the new specifications were issued in summer 1994. There was much concern at the time that the change could damage national results. In reality, the proportion achieving grades A*-C rose from 57.0% in 1993 to 58.4% in 1994.
- 5.8 One feature of GCSE English at the time was the differential performance of boys and girls. For those who thought that coursework gave girls a particular advantage, it would have been a surprise that reducing the coursework weighting from 100% to 40% did nothing to narrow the performance gap. In fact it widened between 1993 and 1994. It remains almost as wide today.

5.9 The chart for GCSE English indicates how stable the results have been and gives no indication that a major change to coursework weightings occurred between 1993 and 1994.



5.10 Another example involves GCSE mathematics. For the first three GCSE mathematics examinations, coursework was optional and large numbers of centres did not choose it. From 1991 to 1993 it was a compulsory element weighted at a minimum of 20%. From 1994 it again became optional.

5.11 The chart of GCSE mathematics results gives no real indication of the changes to coursework that occurred between 1990 and 1991 or between 1993 and 1994.



5.12 Given the experience from GCSE English and GCSE Mathematics in the 1990s, a future change to coursework weightings might well have a minimal impact on overall GCSE results.

Recent views

- 5.13 Until fairly recently the literature and discourse criticising coursework could be characterised as focusing on the quality of teachers' assessment judgements, the likelihood of candidates cheating or that girls in general were profiting at the expense of boys. In 2004, the Working Group on 14-19 Reform set up by ministers made criticisms that were about a different aspect of coursework:

“Coursework assessment is often overly structured, and reduces the opportunity for innovation and dynamic learning. The requirement for coursework in every GCSE, even when the tasks do not fit easily into the approach of the subject, makes this an exercise, rather than a learning experience. It creates a bottleneck at a specific time of the year, when all coursework must be completed, marked and a sample prepared for moderation. During our consultation, many respondents expressed concern about the constraints of existing forms of coursework in GCSE in particular where it is repetitious, but also within GCE specifications.”

- 5.14 This concern is also reflected in the 2005 14-19 Education and Skills White Paper:

“we think that there is scope to lessen the coursework burden, particularly by reducing it where the same knowledge and skills can be tested reliably in other ways. The original concept of coursework was that it should be the assessment of work which would need to be done anyway as part of the course. In many subjects coursework remains an important way of testing skills that are not easily assessed in an exam, such as science experiments or performance in music. Too often, though, as the Working Group on 14-19 Reform point out, young people must complete several similar pieces of coursework in different subjects, as ‘add-ons’ which test similar skills to the same deadlines.”

- 5.15 However, one other major issue is the authenticity of student work, a subject on which there is little research evidence which relates to schools. What literature there is comes particularly from higher education. This implies that whether by intent or through ignorance, some students are copying material from the internet and submitting it as their own work. QCA's 2005 report *A review of GCE and GCSE coursework arrangements* raises similar concerns amongst several areas it identified as needing improvement. These were as follows:

1. Teachers must be confidently and consistently able to confirm that work they mark is the candidate's own. Further guidance on redrafting work, setting coursework tasks and using technology to detect internet plagiarism is required.
2. A great variety of help and advice is offered to candidates by teachers and parents because of limited guidance detailing what is permitted. Clear guidelines explaining the limits of permitted help and advice would alleviate much of this problem.
3. Teachers and centres have a limited knowledge and understanding of what constitutes malpractice. Giving a higher profile to malpractice and the penalties it incurs would go some way to deterring both deliberate and inadvertent malpractice.
4. Standardisation of marks within a centre is required and there is much good and often very thorough practice taking place. However, internal standardisation is not apparent or consistent across all centres. Awarding bodies need to carry out further checks and provide better guidance.
5. The purpose and format of feedback from moderators to centres needs clarification.

6. Although coursework is widely valued there is disquiet in some subject communities about aspects of it. A subject-by-subject evaluation of the weighting and value of coursework assessment should permit better-designed coursework in future specifications.

Evidence from survey of teachers

- 5.16 Ipsos MORI interviewed 100 heads of subject or department for each of the following subjects: Business Studies, History, Geography, English/English Literature, Music, Religious Studies, Modern Foreign Languages (i.e. French, German and/or Spanish) in May 2006. All respondents taught at least one of these subjects at GCSE level.
- 5.17 The GCSE courses taught by the majority (90%) of these teachers include a coursework component.
- 5.18 Overall, teachers' views about GCSE coursework are fairly positive and nearly all acknowledge that it benefits their students. However, a clear pattern can be seen throughout the survey: favourability towards GCSE coursework is somewhat higher among heads of subject/department who teach courses with a coursework component. Music and English teachers are most likely to view coursework positively. At the opposite end of the scale, teachers of Religious Studies are the most sceptical about coursework.
- 5.19 The main perceived benefits of coursework for students include *helping them gain experience and build some skills in the subject* (29%), *encouraging independent learning* (25%), and *making them work in some depth on a particular subject* (20%). Other perceived benefits relate to a student-friendly assessment method, for example *being less stressful than exams* (23%), and *allowing students to work at their own pace* (13%).
- 5.20 A minority (7%) of teachers say that students do not benefit from coursework at all. In comparison, nearly a third (31%) of teachers say they as teachers do not get any benefit from coursework. The main benefit of coursework cited for teachers is that it *allows them to get to know students and their work better* (24%). It is also seen to give teachers *greater freedom and flexibility with the curriculum*, particularly among English teachers (cited by 32% English teachers versus 16% overall).
- 5.21 Looking at the perceived drawbacks of coursework, just under one in ten (9% of) teachers believe there are none for students, and one in twenty (5%) say that there are none for teachers. However, for both students and teachers alike, the key drawbacks cited relate to workload:
- The biggest drawback for students are three-fold: *GCSE coursework is time consuming* (36%), *students have difficulties meeting deadlines* (25%), and *coursework requires a lot of work compared with its weight in the GCSE mark* (10%).
 - Perceived drawbacks for teachers centre around *the burden of marking the coursework*, mentioned by two thirds (65%) of teachers, and *the additional work it generates* (46%). English teachers in particular cite the burden of marking (75% compared to 65% overall).
- 5.22 The majority (91%) of teachers agree that standards for assessing coursework in their subject are the same across their school. Although teachers appear to be divided in their views about the consistency of mark schemes between different schools, this may be because they have limited experience of marking coursework in other schools. Three in ten (29%) disagree the

mark scheme is consistent, two in four (38%) agree, a third (33%) neither agree nor disagree or do not know.

- 5.23 The majority of teachers are not overwhelmingly worried about the use of the internet for coursework. Four in five (82%) disagree that their students make too much use of the internet for their GCSE coursework, and three in five (63%) disagree that the use of the internet presents problems authenticating coursework.
- Teachers of Geography, who are more likely than average to say that their students need to use the internet for coursework, are *less concerned than average* that this presents problems when authenticating work. In contrast, teachers of Religious Studies are the most concerned about authenticating coursework (54% agree versus 31% overall), and half (50%) say their students need the internet for their coursework.
 - Although the majority of English teachers say that their students do not need to use the internet for coursework, teachers of this subject are *more concerned than average* (41% agree versus 31%) that internet use by their students presents problems authenticating coursework.
- 5.24 The majority of teachers are equally positive about the control they have over coursework conditions. Three quarters (75%) agree that their students do their GCSE coursework without external help although over half (58%) feel that candidates in some schools are able to gain unfair advantage in their coursework under the current system. However, the majority of teachers do provide support and guidance to students including: *an opportunity to re-draft and re-submit after initial feedback* (84%), *a checklist* (73%) and *tutorial or clinics* (69%). English teachers are more likely than those in other subjects to provide support with GCSE coursework, perhaps further contributing to their heavy marking workload.
- 5.25 There is no clear consensus as to whether more rules and guidance about GCSE coursework are needed. Although three quarters (76%) of teachers believe there is enough guidance on coursework nearly half (45%) feel that coursework rules need tightening up.
- 5.26 Looking at future arrangements for coursework, the majority of teachers would like to see a coursework element in their subject in the future: two thirds (66%) oppose removing GCSE coursework from their subject, including half (51%) who *strongly oppose* this. Teachers who use practical or oral coursework are most likely to oppose removing coursework from their subject (75% and 77% respectively oppose removing coursework). Only one in seven (14%) teachers say unprompted that GCSE coursework in their subject should be removed, although among Religious Studies teachers this view is expressed by three in ten (30%).
- 5.27 Other than this, there is little consensus about what future arrangements should be:
- 13% of teachers say coursework should be done under supervised conditions, in particular English teachers (22%). Controlled conditions for coursework may be seen as a possible solution to the problems of heavy workload (for students) and authenticating coursework (for teachers) in subjects such as English.
 - 11% say the marking scheme should be fairer or more consistent (slightly more among geography teachers, with 16% mentioning this)
 - 10% would welcome more guidance, information and support from awarding bodies.

Summary of QCA monitoring and comparability evidence

- 5.28 QCA has summarised the evidence on coursework included in its routine monitoring and comparability studies that were carried out between 2001 and 2005. In seven subjects there was substantial evidence and this is described very briefly below.
- 5.29 The main criticism of coursework in Design & Technology was that it does not fulfil the need to be creative and innovative in many cases since marks are not awarded for this. Credit is given for the process and the quality of the end product. Including creativity in the assessment objectives could rectify this. The issue of authenticity in the use of CAD/CAM in coursework could be dealt with if schools ensured that it was used as a tool for enhancing opportunities and not an end in itself. Since these CAD/CAM resources are unlikely to be available to students outside of the school environment it should be easier to regulate the use of them.
- 5.30 The breadth of interesting practical work in double award Science is decreasing and coursework tends to assess candidates on the same things several times. The review of standards reports that marks awarded for coursework were not always merited and generally it has become a set-piece, with rehearsals being conducted in many schools as they try to help prepare the lower ability candidates. The availability of model answers on the internet has led to a situation where candidates can now obtain reasonably high marks without having an understanding of the concepts involved or mastery of the practical skills required.
- 5.31 Although the Geography coursework tasks for the different awarding bodies were very similar, the assessments were varied with no visible rationale, something that makes comparability extremely difficult. It was difficult to determine the extent or impact of teacher direction in the completion of tasks or whether the candidates had completed the work themselves. The review of standards concluded that "much coursework appears to be highly managed by teachers".
- 5.32 In Modern Foreign Languages, although writing coursework may improve candidates' writing skills, the QCA summary found that issues of authentication, over preparation and predictability raised in a number of scrutiny reports together with the variety of practices across awarding bodies were a powerful counterbalance.
- 5.33 Some Religious Studies teachers do not use the mark scheme properly, rewarding fluency of communication rather than actual subject knowledge, understanding or skills. However coursework does allow grade C candidates to demonstrate skills of evaluation that they were not able to show in external assessments.
- 5.34 The main coursework concerns in English are electronic plagiarism, the legitimacy of oral responses to reading and the difficulty of meeting a wide range of assessment objectives. The summary states that tasks and outcomes for coursework are rarely scrutinised to see if the assessment objectives have been met. Moving away from formulaic tasks, which encourage plagiarism, would require the relaxing of the constraints within the specifications and assessment objectives. This, however, has impacts on reliability on the mark/remark system and for comparability.
- 5.35 History coursework was said to remain too open to manipulation by students and centres and there is a concern about the failure to enforce the word limit.

- 5.36 The overall consensus across the summaries was that coursework in its current form does not fulfil its stated purpose. There are concerns about teachers not using the mark schemes correctly. Although extended writing in coursework improves students' writing skills in general, this might be carried out anyway in class time or as homework, particularly if external examinations reinforced these activities.
- 5.37 However, the same monitoring and comparability study evidence also raises some concerns about the quality of particular examinations. It appears that where there have been few changes to examinations since 1997, the examinations may now seem somewhat tired, narrow and predictable. There is a need for fresher examinations with improved validity.

GCSEs in vocational subjects

- 5.38 Part One GNVQs were introduced following Sir Ron (now Lord) Dearing's first review of the National Curriculum. He was concerned about improving motivation and achievement amongst young people for whom GCSEs were not providing the right stimulation. Eight GCSEs in vocational subjects were introduced in September 2002 as the successors to the Part One GNVQs. They mainly include the same content as their Part One predecessors and aim to:
- introduce learners to a broad sector of industry and business
 - encourage understanding of the sector, key concepts and theories prevalent in it; and
 - develop capability in some skills used within them.
- 5.39 Each vocational GCSE comprises three units. Two have internal assessment and one has external assessment. The internal assessment typically involves the production and marking of portfolios.
- 5.40 In QCA's evaluation of the qualifications there was general consensus amongst teachers that GCSEs in vocational subjects were most appropriate for more able students who can cope with the volume of written coursework and can research, explain and analyse.
- 5.41 However, concerns have been expressed by teachers about how, compared to GNVQs, the current assessment requirements may have reduced opportunities for learners to engage actively in vocationally-related learning. The link to external assessment requirements that focus more explicitly on demonstrating knowledge and understanding may make it easier for the externally-assessed unit to be taught in a way that is more detached from the vocational context. QCA's monitoring evidence suggests, though, that in many schools, even the internally-assessed units are not taught in a suitably vocational context. The emphasis on written work is felt to be particularly problematic in more practical subjects such as applied art and design, applied ICT, manufacturing and engineering. The practical work, which becomes a portfolio, is a major part of the qualifications but has a number of major faults.
- 5.42 In both applied ICT and applied science, the skills that differentiated the applied GCSEs from the mainstream GCSEs were independent thinking and more research skills, as demonstrated in the practical portfolio work. However, these skills are intellectually demanding and so are particularly challenging for lower ability students. The high volume of work students are expected to produce also leads to relative under achievement in lower ability candidates in these two subjects.

- 5.43 The extent of visits and practical work expected to form part of these qualifications may be unrealistic in a schools setting. This is due to a number of factors including the low number of organisations willing to host groups of students and the lack of available resources needed for practically based teaching.

Future developments

- 5.44 The environment for GCSE and A levels has changed. Twenty years ago there were no achievement and attainment tables (formerly performance tables), no national or local targets related to examination grades and no link between teachers' pay and students' results. The environment now is far more pressured and in these circumstances, it is likely that internal assessment of GCSE and A levels as presently practised has become a less valid form of assessment.
- 5.45 Any changes, though, need to take account of recent innovations. From September 2009, GCSEs in English, mathematics and ICT are to incorporate functional skills. Candidates not passing the functional skills element will be unable to achieve a grade C or better. From September 2008, the first five specialised diplomas in applied areas will be introduced and be available alongside GCSEs in schools. September 2008 also sees the introduction of new four-unit GCE A levels and the extended project. Of particular relevance to issues concerning teachers carrying out assessments, in May 2006 the Institute of Educational Assessors was launched. It provides professional support and services related to assessment for teachers, examiners and moderators.

6. Principles for choosing assessment arrangements

6.1 We have made our recommendations about future GCSE assessment arrangements by starting from two key principles.

- The intended learning outcomes in a subject are the critical factor in determining the appropriate form of assessment to use.
- The most valid (including reliable) form of assessment for a learning outcome should be determined so that results are fair and robust in any circumstances and maintain public confidence in them.

6.2 However, any decision about the most appropriate assessment method for a particular activity must take account of a third key principle:

- The assessment process should be manageable.

6.3 Learning outcomes are the critical factor in determining the appropriate form of assessment to use in a subject. The term 'learning outcome' encompasses what it is that a learner can do, what he or she knows or understands, and what personal qualities and attributes he or she might have as a result of a learning process. Learning outcomes can be expressed very broadly and generally, or be extremely specific and detailed.

6.4 Learning outcomes such as knowledge of places, understanding written language, appraising a piece of music, evaluating responses to religious issues and interpreting historical sources (referred to below as 'knowledge and understanding') can be assessed through written language. Learning outcomes that include practical abilities or performance skills such as making pottery, creating a piece of clothing, having a conversation in French, playing a violin in an ensemble and playing hockey cannot be validly assessed in that way.

6.5 There are broadly two types of GCSEs.

- Those where the predominant learning outcomes concern knowledge and understanding (for example, English Literature, Religious Studies, History).
- Those where a large portion of the learning outcomes concern practical abilities or performance skills (for example, Art & Design, Design & Technology, Physical Education).

6.6 Our focus in this review is on assessment. We are not seeking overly to influence methods of teaching and learning through the use of coursework as evidence suggests this is no longer a wholly successful strategy. We do, though, want to ensure that the use of a particular mode of assessment does not narrow the curriculum breadth of a subject.

6.7 Looking at learning outcomes, we consider that the most valid method of assessment of knowledge and understanding would normally be through external assessments. On the other hand, the most valid assessment method for practical abilities and performance skills would normally be through internal assessments but not necessarily using traditional coursework arrangements.

- 6.8 Whether the subject is in a vocational context is not an important factor. Neither is the teaching or learning style employed. However, the decision about the most appropriate assessment method for a particular activity should take account of manageability.
- 6.9 Where the outcome of a practical activity is fairly small (in the sense that it can be carried out in a limited amount of time) and the trade-off between increased manageability for candidates and reduced validity is favourable, it may be assessed through an examination. One example would be an oral examination in Spanish which takes much less time than the assessment of speaking skills in lessons.
- 6.10 In some subjects, the outcome of a significant practical activity contains a relatively small amount of knowledge and understanding. For example, an engineering project designing a remote controlled model car might require knowledge of safety standards. Here, the trade-off between increased manageability and the reduced validity of the assessment of the knowledge is favourable. It may therefore be assessed through internal assessment rather than by the use of an additional, separate examination.
- 6.11 The use of these three principles should ensure a greater degree of consistency in assessment arrangements across GCSE subjects in the future. There would no longer be coursework and non-coursework alternatives in a subject.

7. Applying the assessment principles to particular subjects

- 7.1 Applying the first two key principles initially points to Business Studies, Classical Subjects, Economics, English Literature, Geography, History, Modern Foreign Languages, Religious Studies and Social Sciences being assessed entirely through examinations. However, we must then apply the third principle – manageability. In particular, we need to consider the additional costs and examiner supply issues involved if coursework in a subject is simply replaced by an extra written examination – a dimension of manageability that focuses primarily on the awarding bodies.
- 7.2 There is a need to consider the impact of the additional costs incurred on the fees charged by awarding bodies to their centres. Examinations are more expensive than coursework and awarding body fees are a major source of costs for schools and colleges. In the recent White Paper on Further Education, QCA received a remit to lead a review of these fees.
- 7.3 Taking English Literature as an example, replacing the coursework component by an externally-assessed written paper would create major challenges. In this subject the costs of an external examination are much higher than coursework because the average entry per centre is high. In coursework the typical moderation sample is 10 - 20 candidates' work whereas all examination scripts would need to be marked. If the marking fee for coursework is twice the script fee, a school with 200 candidates would cost the awarding body 200 marking fees if coursework is replaced by an additional examination as compared with a maximum of 40 marking fees at present. These costs would most likely be passed on to schools and colleges through higher entry fees.
- 7.4 Additionally the examiner supply issue is of great significance in English since if coursework were replaced by an additional examination, a further half million scripts would need to be marked annually. In this subject there are just enough examiners to mark Key Stage 3 tests, GCSE English and English Literature, and A level English. The introduction of functional skills may produce a further demand. There will be no marked change in the number of 16 year olds in the country over the next few years. There would be a risk in moving to a system requiring more than another 1000 examiners to be recruited.
- 7.5 Examiner supply is also a particular problem in GCSE Religious Studies where entries have grown markedly in recent years. Replacing coursework with examinations would require about another 300 examiners to be recruited.
- 7.6 Our initial position for these nine subjects is that mostly we can replace current coursework with examinations. However, before implementation we need to test out ideas for each subject in terms of both the validity of the assessment, costs and examiner supply issues and the manageability for schools and colleges. Some examinations would need to assess, for example, the analysis of geographical fieldwork data or the use of historical sources. There is an A level examination that assesses selecting and using skills and techniques appropriate to geographical studies. The Advanced Extension Award in History assesses candidates' ability to use sources to explain, analyse and make judgements. We believe that these ideas should be adaptable for use in written papers at GCSE. To be sufficiently valid, some might not necessarily be traditional examinations – but rather controlled assessments.

- 7.7 We therefore recommend that QCA, working with its fellow regulators and the awarding bodies, should investigate and develop where necessary suitable approaches to controlled assessments that will command public confidence and where possible allow us to replace written coursework in these subjects. These assessments would be taken under supervised conditions and be set and/or marked by the awarding body – categories 6 and 7 from paragraph 3.11. Manageability in terms of cost, burdens on teachers, burdens on candidates and the minimal use of valuable teaching time will be key factors here. E assessment might have a beneficial role to play. This development work needs to be completed before the consultation on draft GCSE subject criteria in Spring 2007 ahead of publication of final criteria in Autumn 2007.
- 7.8 The position with regard to the new GCSE English and ICT specifications being taught from September 2009 and Mathematics one year later is complicated by the incorporation of functional skills and the major impact this will have on the assessment regimes to be used. QCA is working with its fellow regulators and the awarding bodies in testing different assessment techniques for the functional skills element of new GCSEs.
- 7.9 When we make recommendations after evaluating these pilots we will again be analysing the nature of the learning outcomes, determining the most valid form of assessment for them and then considering issues of manageability. We have produced a separate report concerning the removal of coursework in GCSE mathematics specifications being taught from September 2007.
- 7.10 The need for candidates to demonstrate important practical abilities and performance skills in Art & Design, Design & Technology, Home Economics, Music and Physical Education points to the continuing use of internal assessment in those subjects. However, where any form of internal assessment is proposed in future GCSE specifications we will want to satisfy ourselves that the awarding body's arrangements both ensure that the tasks and mark schemes to be used are fit for their purpose and permit teachers confidently to confirm that the work they mark is the candidate's own. The work that is assessed should also, as far as possible, be embedded within the course of study.
- 7.11 When we analysed the nature of the learning outcomes in GCSEs in vocational subjects, determined the most valid form of assessment for them and then considered issues of manageability, the present blanket use of two-thirds internal assessment is difficult to justify in at least some cases. If we are to sustain both mainstream and applied routes in a subject such as business then it will be necessary to ensure that the two routes are distinct in terms of their learning outcomes. The type of assessment used should then be determined case-by-case by analysing the nature of the learning outcomes, determining the most valid form of assessment for them and then considering issues of manageability. Where internal assessment is used, we will apply the same criteria described in paragraph 7.10 above concerning the awarding body's arrangements.
- 7.12 Overall the changes proposed above should reduce markedly the overall burden of coursework on individual GCSE students without lowering levels of achievement. When incorporating them into new GCSE criteria, we will ensure they comply with the Disability Discrimination Act.

8. Other issues

- 8.1 There are three other recommendations that we wish to make with regard to GCSE.
- 8.2 Our review has raised concerns not only about coursework but also about some GCSE external examinations. In most specifications the assessment has not really changed for 10 years. Some changes have been driven by an understandable concern to improve the accuracy of marking but may have been at the expense of other aspects of validity, for example, content coverage. We should take the opportunity offered by the introduction of new specifications to improve the quality of examinations. However, to produce more innovative and fresh assessment in future GCSEs, particularly where coursework is withdrawn, will require development work. We therefore request DfES funding for QCA to carry out development work to improve examination quality.
- 8.3 Current GCSE pilots should be continued as they may provide useful evidence for future reviews but with no guarantee that they would be made available more widely once they reach the end of their accreditation period. Further GCSE pilots should only take place if the assessment arrangements proposed conform to the three principles.
- 8.4 Finally, it seems prudent to monitor carefully the proposed changes to GCSE assessment from 2009 so that their impact on such matters as the burden of assessment on candidates, problems of authentication and curriculum backwash effects can be evaluated before another review of GCSE criteria is due. A study should be carried out in 2007 to provide a baseline against which to compare the findings of a further study in about 2012 once the new specifications have been established.
- 8.5 One critical development at present concerns the design of the specialised diplomas. When it comes to determining assessment arrangements for particular units and lines of learning then we believe that the starting point should be analysing the nature of the learning outcomes, determining the most valid form of assessment for them and then considering issues of manageability – the same approach as the one we recommend for GCSE. This should ensure an appropriate level of consistency between the approach to assessment arrangements for GCSEs and the approach for specialised diplomas which will, of course, be taught alongside each other in schools to the same students. It should also ensure that the overall internal assessment load on these students is reasonable.

Summary of recommendations

We advocate that future assessment arrangements should maintain public confidence by being based on the application of three principles:

- analysing the nature of the learning outcomes
- determining the most valid form of assessment for them
- considering issues of manageability.

We recommend that the following actions be taken.

1. When QCA and its fellow regulators consult on draft GCSE subject criteria in 2007 for courses starting in September 2009:
 - (a) In Business Studies, Classical Subjects, Economics, English literature, Geography, History, Modern Foreign Languages, Religious Studies and Social Sciences, there should no longer be coursework that is teacher set and marked. That should be replaced by externally set and marked examinations and/or by controlled assessments where development work (see recommendation 3a below) persuades us that they are a more appropriate replacement.
 - (b) In Art & Design, Design & Technology, Home Economics, Music and Physical Education, internal assessments should continue to be permitted.
 - (c) Any GCSEs in vocational subjects should have learning outcomes that are distinct from equivalent non-vocational GCSEs. The assessment weightings should then be determined for each subject by applying the three principles.
 - (d) Decisions about English and ICT (and Mathematics in 2010) should be made once the role of functional skills and their assessment arrangements are clearer.
2. Awarding bodies should design their arrangements for internal assessments used in future GCSE specifications to be valid and reliable: and, in particular:
 - (a) ensure that tasks and mark schemes appropriately assess learning outcomes
 - (b) permit teachers confidently to confirm that the work they mark is the candidate's own
3. DfES should fund QCA to commission development work on GCSE assessment that:
 - (a) produces new approaches to the use of controlled assessments as a replacement for some coursework
 - (b) seeks to improve the management of internal assessments in centres
 - (c) seeks to improve current written examinations so that they are fresh, challenging and, where possible, have a positive backwash on teaching
 - (d) explores the role that e-assessment could play from 2010.
4. Current GCSE pilots should be continued as they may provide useful evidence for future reviews but with no guarantee that they would be made available more widely once they reach the end of their accreditation period. Further GCSE pilots should only take place if the assessment arrangements proposed conform to the three principles.

5. Changes to GCSE assessment should be carefully monitored so that their impact on such matters as the burden of internal assessment on candidates, problems of authentication, manageability for teachers, awarding bodies' resources and charges, teaching approaches and curriculum backwash effects can be evaluated before another review of GCSE criteria is due. A study should be carried out in 2007 to provide a baseline against which to compare the findings of a further study once the new specifications have become established.

Appendix 1 Examples of the eight categories of assessment

	Task set by	Conditions	Task marked by	Examples
1	Teacher	Not controlled	Teacher	<p>GCSE business studies (AQA spec A) weighted at 25% Candidates are required to complete either a single task or series of smaller tasks from one aspect of the core content. The specification emphasises the use of 'real world' contexts and the integration of the task with the normal teaching and learning process. Examples of tasks, including broad areas which might be addressed, are provided but centres are encouraged to set their own tasks within one of six options: business and change; business support services; enterprise; human resources; ICT; production.</p> <p>GCSE English – Reading and Writing (Edexcel spec A) weighted at 20% There are two coursework elements each weighted at 20%: speaking and listening and reading and writing. In reading and writing, students are assessed for personal and imaginative writing, response to a text from another culture or tradition and work based on a Shakespeare play. The Shakespeare component may also be submitted for assessment in GCSE English Literature where it is assessed against different criteria.</p>
2	Teacher	Not controlled	Awarding body	<p>GCE geography A2 unit (OCR) weighted at 15% Candidates produce a report of no more than 2500 words, based on a question or hypothesis devised by the candidate. An outline structure for the report is provided by the awarding body: identification of the problem to be researched; development of a strategy to research the problem/answer the question; data collection; analysis, evaluation and interpretation of the data to answer the question; drawing conclusions including an indication of their reliability and consideration of the limitations of the study. The report is marked by the same awarding body.</p> <p>GCE history A2 unit (OCR) weighted at 15% Candidates undertake a personal in-depth investigation of their own choice and present their findings as an extended essay of 2500-3000 words. Primary and secondary source materials must be interpreted and critically evaluated within the investigation. Investigations are marked by the awarding body using the published generic mark scheme.</p>

3	Awarding body	Not controlled	Teacher	<p>GCSE mathematics weighted at 20% Two equally weighted tasks, one data handling, the other, using and applying maths. One option is for centres to choose from a bank of awarding body set tasks. The work is marked by the centre.</p>
4	Awarding body	Not controlled	Awarding body	<p>GCE general studies (OCR) weighted at 15% One assignment, from the Social Domain section of the specification is set by OCR for each examination session. This provides an opportunity for candidates to undertake some personal research and to look critically at a wider range of sources. The report should be no more than 3000 words and may include drawings, diagrams, computer generated images and expressions in mathematical and graphical form. The assignment is marked by the awarding body.</p> <p>GCE business studies A2 part unit (Edexcel) weighted at 15% The awarding body prescribes annually two assignment questions from which candidates select one. The number of words should be in the range 3000-3500. Candidates are required to investigate specific activities through individual studies, collect, select and use information in appropriate ways, analyse and evaluate the information, make judgements, demonstrate awareness of a variety of solutions and conclusions, make reasoned statements and communicate these effectively.</p>

5	Teacher	Controlled	Teacher	<p>GCSE science weighted at 20% Practical assessment of investigative skills based on scientific enquiry. Candidates' performance in four skill areas is assessed through a variety of teacher set activities based on candidates' collection of evidence, including observations, measurements or other data.</p> <p>GCSE French weighted at 25% Three assignments, selected from a bank of assignments provided in the specification, and written in the target language, totalling 400-500 words. At least one assignment must be taken under controlled conditions.</p> <p>GCSE English – Speaking and Listening (Edexcel spec A) weighted at 20% In speaking and listening, students are expected to complete three assignments: a drama focused activity, a group discussion and a more formal individual extended contribution. Contexts are required to provide opportunities to: explain, describe and narrate; explore analyse and imagine; discuss, argue and persuade.</p>
6	Teacher	Controlled	Awarding body	<p>GCE history (Edexcel) weighted at 15% Students choose a topic, with guidance from their teacher, for an individual assignment. The assignment consists of two parts: research and planning, which is not supervised, and the writing of the assignment, which is supervised. Time allowed for the writing element is no longer than three hours. The assignment is marked by the awarding body.</p>

7	Awarding body	Controlled	Teacher	<p>GCSE expressive arts (AQA) weighted at 40% Controlled test where candidates have 15 hours which are supervised to prepare a presentation of practical work integrating two art forms and an evaluation of the work.</p> <p>GCSE art and design (AQA) weighted at 40% Candidates are provided with a range of options, designed to cover all assessment objectives. A four week preparatory period is followed by 10 supervised hours when candidates develop their own work to resolve investigations, producing a final piece (or pieces) of work based on the preparatory studies and research.</p>
8	Awarding body	Controlled	Awarding body	<p>GCE chemistry part AS unit (OCR) weighted at 20% The practical examination is offered as an alternative to coursework and addresses the same practical skills: identification of a problem or question; carrying out a practical task using appropriate equipment and procedures; analysis of evidence and drawing conclusions; evaluation including recognition of the limitations of procedures.</p> <p>GCE business studies A2 unit (Edexcel) weighted at 15% An unseen case study is offered as an alternative to a coursework assignment of 3000 words. Time allowed for the case study is 1 hour 30 mins including 15 minutes reading time.</p> <p>GCSE music (Edexcel) weighted at 40% External paper of 1 hour 30 mins covering listening and appraising skills and covering the full range of grades. Candidates are required to respond to questions based on recorded extracts of music from a variety of styles and traditions. The paper includes 10 minutes reading time. Extracts are played a number of times depending on their complexity.</p>

Appendix 2 Arguments for and against coursework

Argument FOR coursework	Implication for assessment result VALIDATION (technical accuracy of results)	Implication for assessment system EVALUATION (social value of consequences / impacts)
<p>To improve teaching and learning</p> <p>Evaluation assumption</p> <ul style="list-style-type: none"> • certain effective pedagogical approaches and strategies are more compatible with coursework (especially those related to formative purposes) • although terminal examinations do not proscribe such approaches and strategies, they do not facilitate them to the same extent as coursework 	<p>Note that certain effective pedagogical approaches and strategies can threaten the accuracy of results (e.g., re-drafting, based upon teacher guidance, is good for formative purposes but makes the accurate appraisal of the final product much more complicated).</p>	<p>If students attain higher levels of knowledge, skill and understanding – due to more effective pedagogical approaches and strategies – then supporting those strategies and approaches is presumably a good thing.</p> <p>Note that certain forms of coursework (especially those involving tightly circumscribed tasks) may be considerably less compatible with the improvement of teaching and learning than others.</p>
<p>To improve teacher participation in subject communities</p> <p>Evaluation assumption</p> <ul style="list-style-type: none"> • if results are to demonstrate sufficient comparability across institutions, teachers will need to engage regularly in moderation exercises 	<p>The more active a teacher's engagement with her community of practice, the more consistent her assessment judgements are likely to be.</p>	<p>Through active engagement with teachers in other schools, in discussion of subject standards, communities of practice will develop. As well as supporting the maintenance of assessment standards, these communities should enable teachers to share pedagogical insights and will help to motivate and professionalise the workforce.</p> <p>Note that certain forms of moderation may not encourage professionalism. Consensus moderation procedures – which prioritise the negotiation of standards – will be most effective. Autocratic moderation procedures – which involve the 'imposition' of standards by an external moderator – will be less effective. Statistical moderation procedures – which prioritise information from statistical sources – will be least effective.</p>

Argument FOR coursework	Implication for assessment result VALIDATION (technical accuracy of results)	Implication for assessment system EVALUATION (social value of consequences / impacts)
<p>To assess/develop those aspects of proficiency that cannot be assessed/developed other than through coursework, i.e., 'coursework skills' (e.g., planning, research, problem solving, etc.)</p> <p>Validation assumption (assessing)</p> <ul style="list-style-type: none"> 'coursework skills' are most appropriately assessed through coursework <p>Evaluation assumption (developing)</p> <ul style="list-style-type: none"> there is a general tendency amongst teachers not to require students to develop 'coursework skills' (unless coursework 'forces' them to) 	<p>If certain important aspects of proficiency are not assessed optimally through terminal examination (i.e., 'coursework skills') then the accuracy of results will suffer.</p> <p>If certain aspects of a specification are not taught – because they are not assessed – then even apparently accurate results will not mean what they are supposed to mean. The results would be taken to imply that students had developed knowledge, skill and understanding from across the full range of the specification; whereas, in fact, certain aspects of proficiency (i.e. 'coursework skills') would not have been developed.</p> <p>Note that certain forms of coursework may not actually be optimal for assessing/developing 'coursework skills' (especially those involving tightly circumscribed tasks and those which focus on assessing product rather than process).</p> <p>Note that, <i>in practice</i>, teachers might not be very good at assessing 'coursework skills' even if, <i>in principle</i>, teacher assessment did represent the most appropriate assessment approach.</p>	<p>If certain aspects of proficiency are deemed important enough to be included in a specification – yet students do not develop them – then the qualification system is (at best) misleading society or (at worst) failing society.</p> <p>When teachers take active responsibility for assessing important aspects of proficiency (i.e., 'coursework skills'), they are likely also to become better at developing them in students.</p>
<p>As above, to assess/develop the following aspects of proficiency</p> <ul style="list-style-type: none"> 'in-depth' understanding (of a particular area of the specification) 'skills of learning' (e.g., planning, review) 'individualism' (e.g., creativity, personal response) 'group work' (e.g., collaboration, persuasion, leadership) 	<p>(Same logic as above.)</p>	<p>(Same logic as above.)</p>

Argument FOR coursework	Implication for assessment result VALIDATION (technical accuracy of results)	Implication for assessment system EVALUATION (social value of consequences / impacts)
<p>To motivate students to develop their proficiency during the course</p> <p>Evaluation assumption</p> <ul style="list-style-type: none"> students generally (or certain subgroups of students) are more motivated by the context of coursework (ongoing, own pace, confidence building, targeting interests) than by the context of terminal examination (one shot, fixed time limit, not personalised) 	<p>Arguably, if students are less than optimally motivated throughout their course – and achieve lower than they ought to have done – then even accurate terminal results might be said to be misleading.</p>	<p>If students attain higher levels of knowledge, skill and understanding – due to more motivation – then this is presumably a good thing and should be encouraged.</p>
<p>To increase the reliability of assessment results</p> <p>Validation assumption</p> <ul style="list-style-type: none"> it is a general principle of assessment that the longer the assessment the more reliable results are likely to be 	<p>Since coursework can involve the production of a large amount of assessment evidence, there is potential for it to generate more reliable results than terminal examinations do.</p> <p>Note that the general principle is strong in the context of traditional tests, where each additional question is (in essence) assumed to contribute an <i>independent</i> estimate of a <i>fixed</i> level of attainment. It is less strong – or at least quite different – in the coursework context (where both of these assumptions are questionable).</p> <p>Note that the general principle will be least strong when the coursework involves a single task of limited duration.</p>	

Argument AGAINST coursework	Implication for assessment result VALIDATION (technical accuracy of results)	Implication for assessment system EVALUATION (social value of consequences / impacts)
<p>It can sometimes be difficult to authenticate a student's contribution to the quality of the final product</p> <p>Validation assumption</p> <ul style="list-style-type: none"> • students may receive an unknown amount of support from parents • students may complete some of the work within a group setting (legitimate) or may collude with others (illegitimate) • students may plagiarise • students may cheat 	<p>Marks are intended to represent a student's level of attainment, based upon evidence from the quality of their work. To the extent that quality of work is attributable to factors beyond the student (e.g., due to parents or to plagiarism) marks are likely to be inaccurate.</p>	<p>If coursework effectively 'encourages' students to plagiarise or to cheat (i.e., if plagiarism and/or cheating cannot straightforwardly be prevented), then plagiarism/cheating may become very entrenched.</p>
<p>The kind of assessment judgements that are often associated with coursework (especially those, like problem-solving, unrelated to progression in understanding of a subject area) can be difficult to make</p> <p>Validation assumption</p> <ul style="list-style-type: none"> • constructs that are hard to assess through terminal examination are often also hard to assess through coursework 	<p>When criteria for rewarding attainment are unclear – including ambiguity over what counts as progression in relation to an assessed characteristic – the accuracy of results will inevitably be compromised.</p>	
<p>Assessment judgements can be difficult to standardise</p> <p>Validation assumption</p> <ul style="list-style-type: none"> • there may be a lack of control over contexts and formats for producing coursework • there may be differences between schools in the degree of support provided by teachers • there may be differences between schools in the amount of re-drafting permitted 	<p>Ineffective standardisation will allow an undue amount of inaccuracy to remain in the results.</p> <p>In terms of support and re-drafting, the accuracy of results is likely to be compromised unless these are: (a) consistent across all students; or (b) quantified accurately for each student and somehow 'adjusted for' in the final mark. Both of these situations are likely to be problematic in practice.</p>	<p>Any perceived inconsistency of standards between students/schools can lead to a general mistrust of the system.</p> <p>Although moderation is necessary, moderating judgements can seem unfair (especially statistical ones which apply 'blindly' across a whole centre), which can undermine trust in the system.</p>

Argument AGAINST coursework	Implication for assessment result VALIDATION (technical accuracy of results)	Implication for assessment system EVALUATION (social value of consequences / impacts)
<p>In some subjects, the practical requirements of coursework may prove inappropriate</p> <p>Validation assumption</p> <ul style="list-style-type: none"> coursework may require skills that are of little relevance to a specification (e.g., requirements for extended writing within mathematics) 	<p>If coursework forces a mode of performance which requires the application of skills beyond those closely associated with the subject (i.e., that are not intended to be in the specification) then the quality of work produced will be affected by factors that ought not to be assessed. This will introduce inaccuracy into the marks.</p>	
<p>Coursework can be tedious and de-motivating for some students</p> <p>Evaluation assumption</p> <ul style="list-style-type: none"> work can mount up in advance of deadlines, re-drafting can be tedious, and this can compound across subjects open-ended tasks can be frustrating for some students some students (especially lower attaining ones) may feel a lack of sense of completion of coursework 	<p>Arguably, if students are less than optimally motivated throughout their course – and achieve lower than they ought to have done – then even accurate terminal results might be said to be misleading.</p>	<p>If students attain lower levels of knowledge, skill and understanding – due to less motivation – then this is presumably a bad thing and should be discouraged.</p>
<p>Coursework may, to some extent, assess the same aspects of proficiency across subjects</p> <p>Evaluation assumption</p> <ul style="list-style-type: none"> assessing the same aspects of proficiency on multiple occasions is inappropriate 	<p>Note, if these ‘common’ aspects are core to each subject, then they <i>ought</i> to be assessed within each subject. (For the reasons described above in the ‘For’ section.)</p>	<p>There may be a perception that students are being over-burdened by unnecessary assessment requirements.</p>