

Preliminary investigation of the summer 2002 OCR A level awards

20 September 2002

Executive summary

- 1 This preliminary report focuses on OCR results in English literature, history and psychology, and on students who achieved two A grades and one U grade at A2 level.
- 2 In each of the three subjects, the distribution of coursework grades is similar to those for written examinations. Coursework in these subjects has not been graded more severely.
- 3 There are 979 OCR candidates with A A U grade profiles, which is 0.5% of the total. Of these, half have a U grade in coursework. They are spread across 565 schools and colleges taking OCR examinations; of which 362 have only one such candidate. A few schools have a very high incidence of such results. The number of schools with A A U results is small in relation to the whole student population, and problematic in only a few schools.
- 4 There is much confusion about the level of AS and A2 standards, especially in coursework, and some confusion in the use of bands to establish grades.
- 5 The chief executive of OCR has acted within his powers in setting boundaries between grades.

Introduction

The grading of certain coursework units in examinations run by the Oxford, Cambridge and RSA Examination Board (OCR) is a matter of public concern. On Monday 16 September the Secretary of State asked QCA to investigate the issue and report back to her.

Given that this preliminary report has been prepared in four days it focuses only on the major issues of particular concern – English literature, history and psychology, and those students who achieved two A grades and one U grade in any A2 subject.

Background

In 2002 the first cohort of students received the full GCE advanced level awards after following new courses which were part of the government's Curriculum 2000 reforms. These reforms, introduced in schools and colleges in September 2000, represent the most important development in the advanced level curriculum for half a century. A key feature of the revised qualification is that it maintains the high standards expected of the GCE A level.

In most cases, students will have taken six separate units for each GCE A level awarded. The first three of these units will have been taken at the Advanced Subsidiary (AS) level which is a certificated qualification in its own right, set at a standard that can be expected at the end of the first year of a two-year course of study. The remaining three units will have been taken as A2 units which, when combined with the AS awards, entitled students to the full GCE A level award. All GCE A levels contain an assessment at the end of the course that tests students' understanding of the whole specification (synoptic assessment).

The way in which the results from the separate units are combined together to produce A level grades is defined in the national code of practice. The code lays down that the prime objective of awarding is the maintenance of grade standards. The process described is based closely on

that used in the previous generation of A level syllabuses. The most senior examiners, led by the chair of examiners, meet to evaluate candidates' work and consider a range of archive material and statistical evidence. On the basis of this, the chair makes recommendations on the threshold mark needed for each grade for each unit. The chair's recommendations are scrutinised by the accountable officer of the awarding body (ie the chief executive) to ensure that the final grades awarded represent continuity and parity of standards across years, over time and across specifications. Should the chair's recommendations be deemed to need re-consideration, the final grade boundary marks are determined by reviewing all the evidence.

QCA observers attended awarding meetings in the summer across 13 different OCR GCE subject areas. As part of its monitoring programme on the new A levels initiated in 2000, QCA is carrying out in depth scrutinies of OCR GCE qualifications in English, physics, chemistry, history, geography, design and technology, German and psychology. The particular focus this year is on the award of A2 units and the first Curriculum 2000 A level results. However, other subjects have also been monitored.

Terms used in this report

Awarding

The process through which an awarding body uses evidence from assessment to determine the award which each candidate's performance merits.

Grade

A zone on a scale of performance used to differentiate achievement within a qualification. For example, grade A indicates the highest GCE A level achievement on a scale which runs from A to E.

Marking bands

These describe a level of performance that merits a particular range of marks.

Moderation

The process through which coursework is checked and scaled by an external moderator appointed by the awarding body to ensure that the marks are valid, fair and consistent with required standards.

Synoptic assessment

A form of assessment that tests candidates' understanding of the connections between the different elements of a subject.

Unit

The smallest part of a qualification that can be separately certificated.

Procedures of OCR

On 18 September, Dr Ron McLone, chief executive of OCR, together with his senior officers were formally examined on procedures of the awarding body and his role as accountable officer. He claims not to have been put under any pressure from QCA or government sources

to act in any way beyond the requirements of the Code of Practice. He also claimed to have discharged his duties as accountable officer as required by the code of practice and in line with procedures adopted in previous years. At this stage of the investigation, no evidence has been found to the contrary.

Dr McLone pointed to the particular difficulties faced in 2002 as a result of awarding a new qualification for the first time. One was the difficulty experienced by some centres in understanding the different standards expected for the AS and A2 examinations. He submitted that some centres had set ideas on A level coursework standards and did not make the necessary adjustment required by the new specifications. He acknowledged that the presentation of the marking bands in OCR specifications should be more consistent and more clearly separated from grades. Although OCR provides in-service training for teachers to support its specifications, this evidence suggests that it has not been fully effective, for reasons yet to be investigated.

The second issue was the establishment of an A2 standard at the awarding stage. Dr McLone reported that the awarding committees had worked diligently, but that in some cases it was necessary to make adjustments to the recommendation made to him by chairs of examiners in order to bring some units into line with other awards. He described this as an iterative process requiring reconsideration of some decisions in the light of the full evidence available to the accountable officer both within and across the full range of subjects. Where changes were made, chairs of examiners and awarding body subject officers were fully involved.

It was evident, however, that in 2002 the chairs of examiners were asked more frequently than in previous years to reconsider some of their judgements. A high proportion of these interventions were in coursework units. Dr McLone submitted that the fact that the specifications contained grade descriptions for the 2001 legacy A level, and not the 2001 AS standard and the 2002 A2 standard, made the process of understanding standards more challenging.

Dr McLone said there was no predisposition on his part to amend the judgements made by chairs of examiners and that changes were not made in the majority of cases. He submitted that where changes were made, it was on the basis of the full candidature, and that at no time were changes made at individual candidate or school level. He said that it was his duty as accountable officer to ensure fairness to all candidates and that the procedures followed by OCR in 2002 fully reflected those of previous years. At the present stage of the investigation, there is no evidence to the contrary.

The OCR 2002 results

This part of the report first focuses on data from three OCR summer 2002 A level examinations – English literature, history and psychology. These were selected because the outcomes from the coursework units in these qualifications were of more concern in schools and colleges than other qualifications.

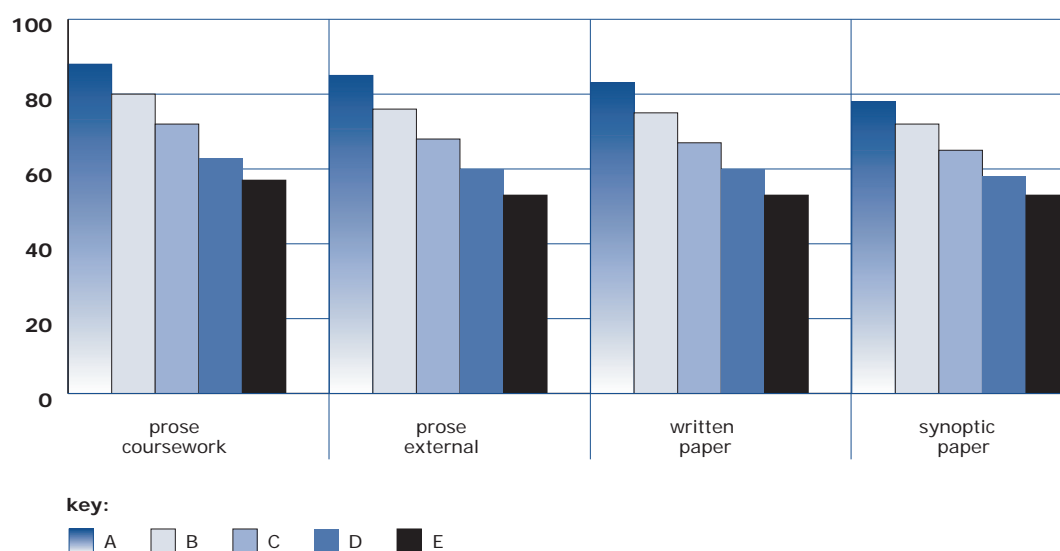
English Literature

In OCR A level English Literature the coursework unit (2711) is optional, as candidates may take a written paper (unit 2712) as an alternative. The coursework is internally marked and

externally moderated. The chart below shows, for each A2 unit, the threshold mark needed to attain each grade on each A2 unit in the summer 2002 examinations.

OCR English Literature

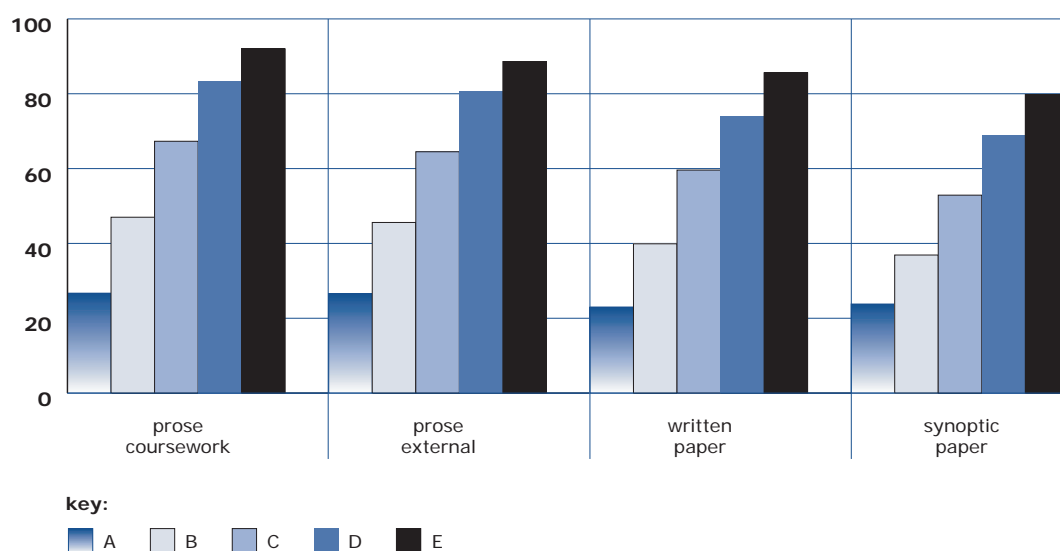
Minimum percentage mark needed for each grade



The next chart shows, for each unit, the percentage of candidates achieving each grade or better.

OCR English Literature

Cumulative percentage of candidates at grades A–E



Both charts show that coursework is in line with the requirements of the examined units.

Since not all candidates take all units, it is important to check that the conclusion being drawn from these charts is fair. A unit pairs distribution analysis to compare performance in the two units has been carried out for the 8,223 candidates who took both coursework and the synoptic

unit (2713). This shows 26.7% of the candidates achieving grade A on coursework and 25.7% achieving grade A on the written paper. At grade E the relative percentages are 92.4% and 82.1%.

The correlation coefficient for this analysis is 0.56. This suggests that the link between performance on the two units is weak, so we would not expect a candidate achieving a high grade on one unit necessarily to perform as well on the other unit.

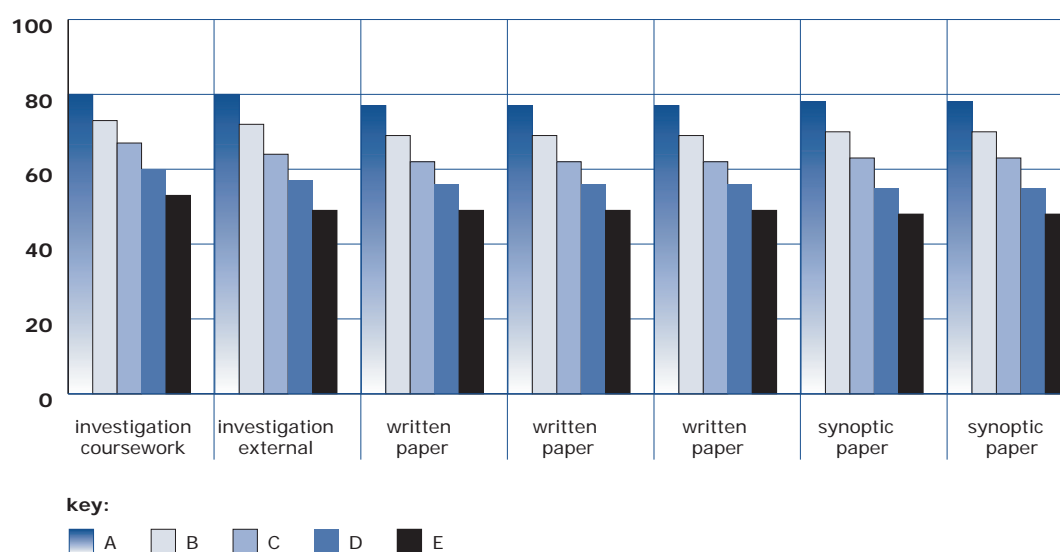
These data do not provide evidence that coursework in this specification has been severely graded. Overall the candidates have performed better in coursework than in the written papers. The grade E boundary mark for coursework – 34/60 – is quite high but is consistent with those in the examined units – 32/60.

History

In OCR A level history, the coursework (unit 2592) is optional. Alternatively, candidates may take unit 2593, an open book examination. The coursework unit is externally marked. The chart below shows, for each A2 unit, the threshold mark needed to attain each grade on each A2 unit in the summer 2002 examinations.

OCR History

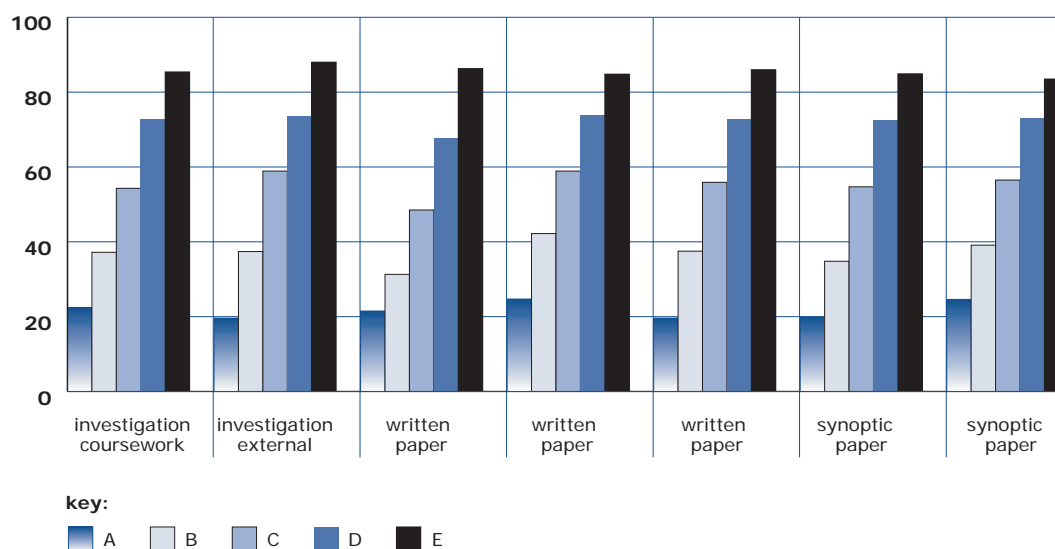
Minimum percentage mark needed for each grade



The next chart shows, for each unit, the percentage of candidates achieving each grade or better.

OCR History

Cumulative percentage of candidates at grades A–E



Both charts show that coursework is in line with the requirements of the examined units.

Since not all candidates take all units, it is important to check that the conclusion being drawn from these charts is fair. A unit pairs distribution analysis to compare performance in the two units has been carried out for the 11,157 candidates who took both coursework and the synoptic unit 2591. This shows 20.2% of the candidates achieved grade A on coursework and 24.9% achieved grade A on the written paper. At grade E the relative percentages are 85.0% and 83.9%.

The correlation coefficient for this analysis is 0.37. This suggests that the link between performance on the two units is weak so we would not expect a candidate achieving a high grade on one unit necessarily to perform as well on the other unit.

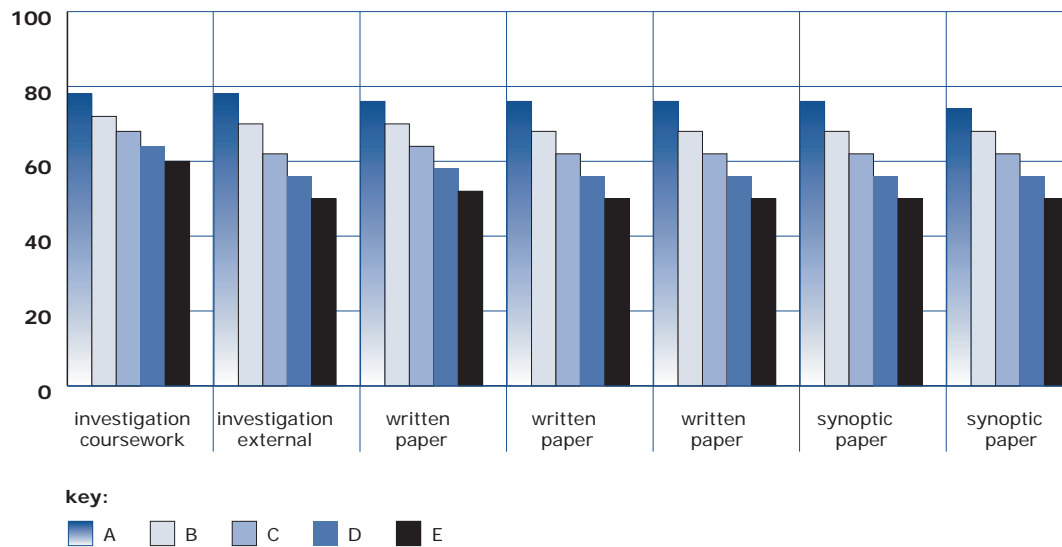
On this evidence, coursework in this specification has not been severely graded.

Psychology

In OCR A level psychology, the coursework unit is compulsory and it is externally marked. The chart below shows, for each A2 unit, the threshold mark needed to attain each grade on each A2 unit in the summer 2002 examinations.

OCR Psychology

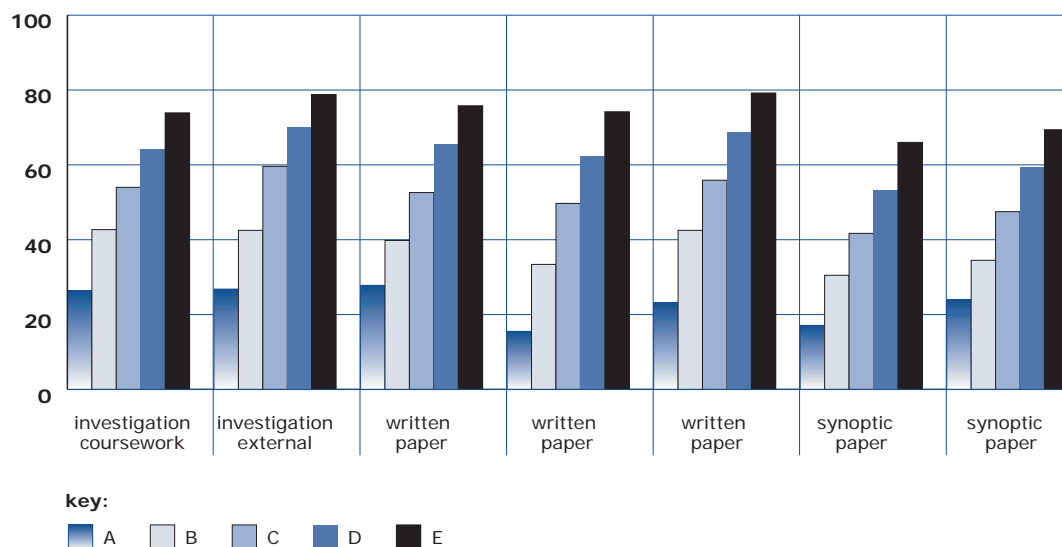
Minimum percentage mark needed for each grade



The next chart shows, for each unit, the percentage of candidates achieving each grade or better.

OCR Psychology

Cumulative percentage of candidates at grades A–E



Both charts show that coursework is in line with the requirements of the examined units.

Since not all candidates take all units, it is important to check that the conclusion being drawn from these charts is fair. A unit pairs distribution analysis to compare performance in the two units has been carried out for the 4,074 candidates who took both coursework and unit 2549. This shows very similar numbers of candidates achieving each grade across the two units. The correlation coefficient for this analysis is 0.40. This suggests that the link between

performance on the two units is weak so we would not expect a candidate achieving a high grade on one unit necessarily to perform as well on the other unit.

It is noticeable that the grade E threshold for coursework – 30/50 – is a little higher than those for the examined units – 25/30 or 26/30.

Other awarding bodies

Relatively small numbers of complaints have been received by QCA about the two other awarding bodies in England, but their results will be scrutinised in the further stage of this investigation.

Students affected

The concern that has emerged in recent days is that many candidates who obtained the highest level (that is grade A) in examination modules were unfairly awarded unclassified results in the coursework element.

Data obtained from OCR show that across all of OCR's specifications, there are 979 candidates with grades A, A and U in their A2 units out of a total of 181,000, or about 0.5% of all candidates. Of these about half obtained a U grade in their coursework. The number of candidates in the subjects so far considered by this QCA investigation are English Literature 17, History 49, and Psychology 98.

TABLE 1 – Numbers of candidates with two A grades and one U grade in their A2 units by centre

Centres with 1 candidate	362
Centres with 2 candidates	120
Centres with 3 candidates	32
Centres with 4 candidates	25
Centres with 5 candidates	11
Centres with 6 candidates	6
Centres with 7 candidates	4
Centres with 8 candidates	1
Centres with 9 candidates	1
Centres with 10 candidates	1
Centres with 12 candidates	1
Centres with 23 candidates	1
Total centres	565

Preliminary observations

- 1 There appears to be real confusion about what is represented by the AS and A2 standards in relation to the legacy A level. This seems to be particularly the case with respect to coursework.
- 2 In OCR specifications in English, history, psychology, geography and modern languages, the A2 coursework is marked using bands provided by OCR. Typically for each subject there are six bands. Each band represents and describes a level of performance. The marker is required to judge the candidate's work and then find the best match between it and one of the descriptors. Each band includes a narrow range of marks. Once the marker has determined the best band, the most appropriate mark in the range is selected. Each of these bands has a label – either a number or a letter.
- 3 It was not intended by the awarding bodies that these bands should relate directly to the final grades. Nevertheless, this might not have been made clear to some teachers, who might have drawn on previous experience and outdated information to relate the marking bands to grades, rather than using the descriptors as the basis for marking.
- 4 The process of awarding grades by the awarding body involves assigning a threshold mark that best represents minimum performance for a particular grade, in order to maintain comparability of standards with previous years. In seeking to ensure parity of standards across the coursework and examination units, the chief executive of OCR set the threshold marks for some A2 coursework at a higher level than had been recommended by chairs of examiners. The result was that they were set at a higher level than legacy A levels. In doing so, the chief executive was acting within his powers.

Further action

This investigation will continue, looking initially at other subjects and awarding bodies. All data, findings and other information will be made available to Mr Mike Tomlinson.

Particular attention will be given to enquiring into the circumstances at the small number of centres where there appears to be a disproportionate number of able candidates who were awarded a grade U in the coursework element of their A level examinations.

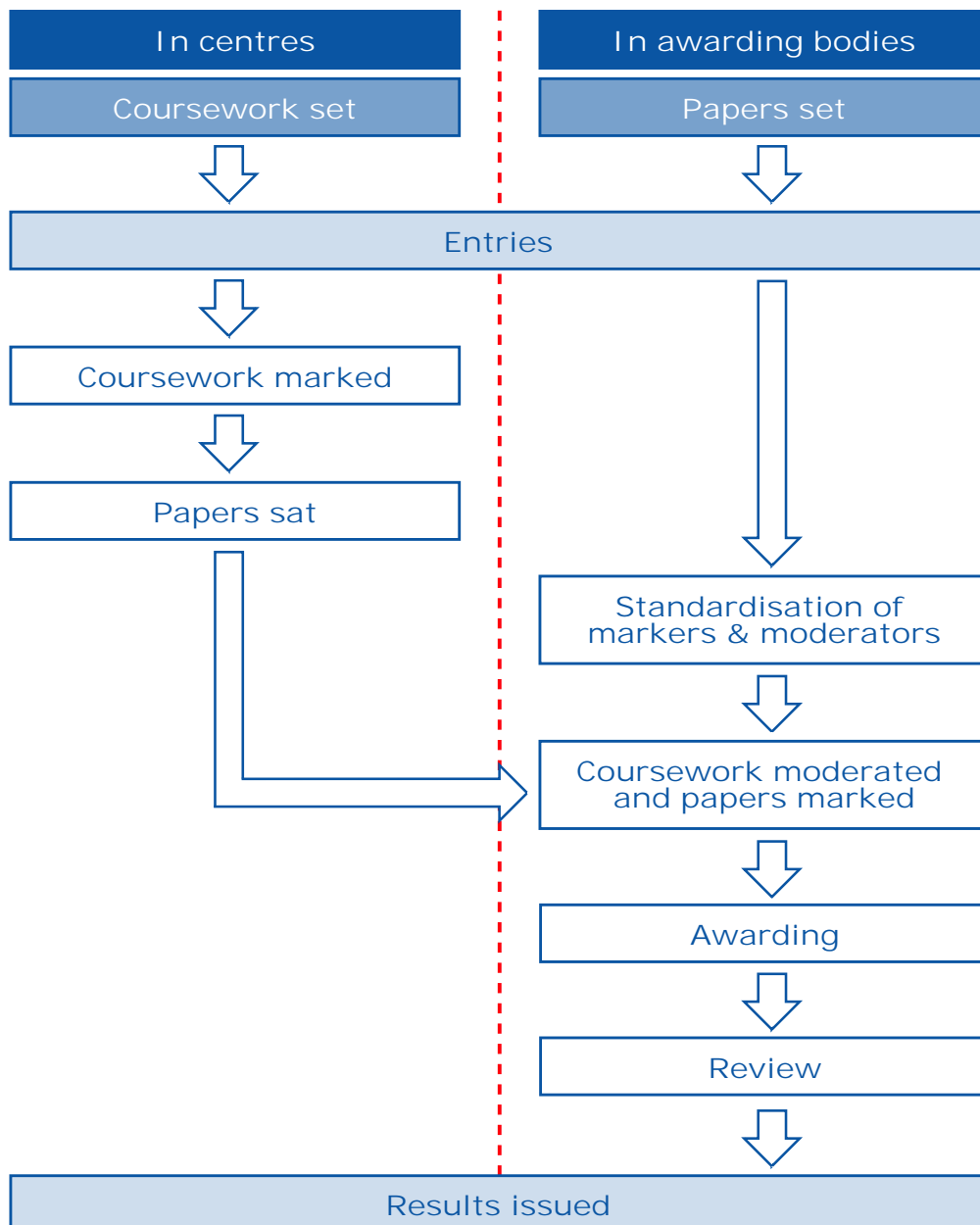
The QCA directs OCR to check the accuracy of externally-marked coursework marks for A level candidates who were ungraded in coursework but achieved grade A in their other units, by Friday 26 September.

APPENDIX

The examination process

The process of running examinations is primarily the business of awarding bodies. However, it also depends heavily on the co-operation of the schools and colleges (centres) which take them. The following flow chart identifies, in rough chronological order, the roles and responsibilities of those on both sides. None of the stages identified below is either a single or a simple activity, but covers several micro-processes. The procedures and requirements described here are those outlined in the code of practice and thus constitute the minimum expected. Awarding bodies often have additional systems of quality assurance and control.

The examination process



Setting papers

Principal Examiners are appointed to each component in a qualification. Well over a year before an examination, they start the process off by drafting their papers and accompanying mark schemes. The general structure and content of these question papers will need to follow any details in the specification. When the setter is satisfied with the draft, it is sent to a Reviser, who considers it in the context of the other papers for the examination and checks it for coverage of the syllabus, comparability with previous papers, clarity etc. The setter receives comments from the Reviser and makes any amendments necessary. The set of papers is then considered by a Question Paper Evaluation Committee which may make further suggestions for amendments. The setter makes any further changes, carefully scrutinising the mark scheme to ensure it reflects any changes. When finalised, the papers are sent to an Assessor who checks that they are fair to candidates and can, for example, be completed in the time allowed.

Setting coursework

Teachers set coursework tasks in line with guidance in the specification, any additional support materials provided and Inset there has been. They have to ensure that the tasks allow candidates to meet all the relevant assessment objectives and to demonstrate their attainments against the marking criteria specified by the awarding body.

Entries

Centres send entries either on paper or, increasingly, electronically. Awarding bodies merge these data, then check them, validate them and try to resolve any errors. They may be returned to the centres for correction if necessary. It is essential this process is completed accurately well before the examination season since on it depends things like the accurate despatch of examination papers and the correct personal details for marksheets and certificates etc.

Coursework marked

Teachers assess the candidates' work against the criteria specified by the awarding body. If there is more than one teacher in a centre they have to ensure that their marking is consistent across all teaching groups. Once this is completed, the centre sends the marks to the awarding body. A sample of candidates' work is also sent to a moderator who will ensure that the centre has marked in line with the agreed national standard. It is important to remember that this process involves assigning marks to the work against specific criteria: it does *not* involve grading the work.

Papers sat

Candidates take their examination papers according to a pre-set timetable. There are strict rules prescribed by the awarding bodies governing the conditions under which papers must be stored, candidates write their papers and for dealing with any timetable clashes. Once the papers are completed centres send them directly to markers.

Standardisation of markers and moderators

Before marking work, whether coursework or written papers, markers and moderators attend a standardisation meeting to ensure they have a shared understanding of the mark scheme and how it relates to the question paper and to agree approaches to any problems that have been identified with the way the paper has worked. They also mark a number of photocopied scripts/pieces of work and review their marks. The meeting is led by the Principal Examiner/

Moderator for the component. Samples of their marking are checked by more senior markers at regular intervals during the marking process to ensure that they are marking consistently and in line with the agreed standard. The aim of the whole process is to try and ensure that the marks awarded are the same as if the Principal Examiner/Moderator had marked every single piece of work. If there is evidence that this has not been the case, examiners' marks are adjusted to bring them into line with the required standard.

Marking and moderation of work

Markers mark an allocation of exam scripts, usually covering several centres and send their marks in to the awarding body on a tight schedule. However, the process of moderating coursework is slightly different. Moderators only see a sample of any centre's work, the size and nature of that sample being tightly defined by the awarding body. As a result, there are three decisions available to the moderator/ awarding body: to accept the centre's marks, to make some adjustments to the centre's marks if it seems to be consistently different from the agreed standard, and to re-mark all the work from the centre. If the decision is to make some adjustments to a centre's marks, these are applied to all the candidates from the centre and not just those in the sample. A key principle in the process is that the centre's original rank order must not be changed by the process, so that candidates with the same original mark are not differentially affected. If there is clear evidence from the sample of work that the centre's rank order is severely unreliable, the work of the whole centre must be re-marked so that every candidate receives the mark for their work that the moderator believes it to merit.

Adjustments to centres are made both upwards and downwards but, in general, centres marking is more often generous than severe so that adjustments downwards tend to predominate.

Awarding

When the marking is complete and the marks have been compiled, there is a meeting of the senior examiners involved with the subject. The meeting is led by the Chair of Examiners for that subject. The main purposes of the meeting are to recommend grade boundaries for the key judgemental grades (A and E for A level). The principal considerations in this process should be the maintenance of standards from year to year and across different specifications in the same subject (for example in different awarding bodies).

The main activity in the meeting involves the close scrutiny of candidates' work in each component of the examination. The awarders are tasked with determining what level of performance on this year's examination corresponds with that required just to obtain the given grade last year. The work is evaluated against archive scripts exemplifying performance from previous years, taking into account any differences in the paper. Awarders are also required to take into account a range of technical and statistical information about the examination. In practice, the process often comprises the establishment of a range of marks within which the awarders are unable to decide precisely which mark most closely represents the required standard and the use of the technical data to finalise their recommendations.

Review

Once the awarding meeting has decided its recommendations, the decisions are used to generate final grades for the subject. The outcomes thus produced are then reviewed in two stages. First, the Chief Executive meets the Chair of Examiners to review the awarding

meeting. The purpose of this is to take a wider view of the subject results, and may take into account results in other subjects and results in the same subject from other awarding bodies. The meeting also considers any issues and problems that the meeting has raised. The Chief Executive may agree the recommended boundaries or may agree with the Chair that one of more of the recommendations should be adjusted. This will normally not move the boundaries outside the range of marks established in the meeting.

The second stage of review takes place once the grade boundaries have been finalised. A team of senior examiners meets to re-mark the scripts of any candidates who are considered to be at risk of receiving the wrong result. This may be, for example, because their final grade differs markedly from the estimate provided by the centre. Because the bulk of coursework is held at the centres rather than the awarding body, this review normally only concerns itself with the written components.

Results issued

Once the second stage of review is completed, the awarding body generates the final results and despatches them to UCAS and to the centres which pass them on to the candidates. The awarding bodies also supply a range of information, such as grade boundaries and details of candidate performance in each part of the examination, to assist the centres to evaluate their results. Where candidates or centres are dissatisfied with the results, they can launch an enquiry upon results or ask to see the candidates' scripts. Enquiries upon results cover a range of services from a clerical check to the re-moderation of the coursework.