

THE EFFECT OF APPLYING A HURDLE ON A COMPONENT OF GCSE ENGLISH: INVESTIGATION OF FUNCTIONAL SKILLS

Austin Fearnley

EXECUTIVE SUMMARY

The 2005 White Paper announced reforms which will require students to master functional skills in GCSE English and mathematics and also as a part of a new general (GCSE) Diploma. This diploma will recognise the achievement of five GCSEs at grade A*-C including English and mathematics. For students who achieve the functional element only of GCSE, that achievement will be separately certificated. A review of coursework is also taking place in order to reduce the assessment load of GCSE.

QCA produced draft requirements of Functional Skills in their report *Functional English Standards*. In autumn 2006, a joint STAG/AQA inter-awarding body research investigation took place in which the QCA Functional Skills standards were translated into levels descriptors so that candidates' scripts could be assessed in terms of Functional Skills in a judgemental exercise by senior examiners (AQA/STAG, 2006). Examiners were provided with scripts and they used the descriptors to assign Level 2 (grade C) achievement, or failure, in Functional Skills to each script. Subject grades were calculated in six different ways, but none of these ways was the route of particular interest to the current report, as none excluded the coursework components. The effects on the discriminating power of a GCSE English examination which excludes coursework are therefore investigated here as there is a possibility that QCA will require coursework to be discarded.

AQA GCSE 2006 English Specification A Paper 1 (Foundation and Higher tiers) was selected for the AQA/STAG investigation as the examination component most closely matching the QCA requirements of Functional Skills. The examiners also determined Functional Skills levels (1, 2 or U) for a selection of candidates on Paper 1 Tier H and Paper 1 Tier F which staff then used to determine Functional Skills boundary marks. However, Paper 1 does not include all the Functional Skills standards, and some of the Paper 1 content is not Functional Skills, so Paper 1 is only an approximation to a Functional Skills paper. The aggregate marks of Papers 1 and 2 formed a pseudo-subject for purposes of the present investigation with a Functional Skills hurdle applied to Paper 1 which could block access to the subject level award at grade C.

Catastrophic effects on the subject pass rates were demonstrated to be caused by the application of hurdles on Paper 1. For a Functional Skills hurdle to have not too great an effect on subject grade boundaries it must be set at a level not more than a current mid grade D standard on Paper 1. Yet the STAG/AQA exercise produced judgements for Level 2 (Grade C) Functional Skills at the current Paper 1 **grade B** standard rather than at grade C standard. This level is two grades above the position where the hurdle has no effect and one and a half grades above the point where the hurdle effects are barely recoverable. There is therefore a very low and narrow window on the Functional Skills components of about four marks. A hurdle below that window has

no effect on subject level grade C. A hurdle above that window means that the subject level grade C pass rate is seriously lowered because of the Functional Skills performances.

It may be that the standard of Functional Skills work will rise so that it becomes easier for candidates to obtain high marks. In that case the hurdle would have little impact. But the reason for the high judgemental hurdle mark on Paper 1 is that 'mastery' of the skills is expected of the candidates and mastery, of course, requires the demonstration of a high level of competency. Two alternative methods of softening the dramatic effects of hurdles are discussed.

If policy proposals changed so that GCSE English were to be awarded without a Functional Skills hurdle, current standards within the GCSE subject could be maintained, ignoring here any other changes to standards which would arise from withdrawing the coursework components. If the Functional Skills element were only to be examined separately, it might act as an independent hurdle for obtaining the Diploma. The extreme effects of the hurdle would then apply only to the Diploma, where they might not be out of place. However, it is acknowledged that, under the present planning, the outcome could be that the GCSE English examination grade C standard of the future will be dominated by the single assessment element of functional skills.

INTRODUCTION

Following the publication of the 14–19 Education and Skills White Paper (February 2005) and the Skills White Paper (March 2005), the DfES asked QCA to develop functional skills in English, ICT and mathematics. Functional skills are intended to be a set of qualifications in their own right, but they will also be a part of GCSE qualifications. The reforms require achievement in English and mathematics as part of a new general (GCSE) Diploma in an aim for every person to master functional English and functional mathematics. This diploma will recognise students who achieve five A*-C grade GCSEs including English and mathematics, where no-one can get a grade C or better in English and mathematics without mastering the functional elements. In cases where the functional element only is achieved, it is planned in the White Paper to recognise that achievement in a separate certificate. A review of coursework is also taking place in order to reduce the assessment load of GCSE.

Functional English and mathematics are defined in the White Paper as the English and mathematics that people need to participate effectively in everyday life, including in the workplace. QCA has produced detailed requirements of Functional Skills in their 2006 report *Functional English Standards*.

Inter-awarding body research work has been carried out in autumn 2006 by Taylor and the AQA English subject team, and a report produced (AQA/STAG, 2006). In this project, AQA GCSE 2006 English Specification A Paper 1 (Foundation and Higher tiers) was selected for investigation as the examination component most closely matching the QCA requirements of Functional Skills.

In the inter-awarding body exercise, the AQA English Chief Examiner first identified the questions on Paper 1 which required the demonstration of Functional Skills listed by QCA. Some skills were not covered in Paper 1 either because they were part of Speaking and Listening coursework or because they were not included in GCSE English at all. Therefore, the retrospective assessment

of Functional Skills of English A candidates using the 2006 scripts could not fully meet the recent requirements of QCA for Functional Skills.

Some of the questions in Paper 1 did not assess Functional Skills. Nevertheless, 36 marks out of 54 on Tier F were deemed to be designated as Functional Skills marks. At Tier H, 45 out of 54 marks were deemed to be Functional Skills. The Chief Examiner next translated the draft standards into levels descriptors so that candidates' scripts could be assessed in terms of Functional Skills in a judgemental exercise by a panel of seven senior examiners.

The examiners first discussed the descriptors provided by the Chief Examiner. They were then provided with scripts and applied the descriptors to assign Level 2 or not to each script. This was carried out for reading and writing separately (i.e. Paper 1 Sections A and B, separately). The outcome of this work was to allow Paper 1H and Paper 1F pass marks to be determined which signified success on Functional Skills at Level 2. These pass marks have been used in the current investigation as judgemental pass marks. Subject grades were calculated in the AQA/STAG study in six different ways, but none of these ways was the route of particular interest to the current report, as none completely excluded the coursework component.

The current report focuses on the effects on discriminating power if a GCSE English examination were to consist of only one written paper and a Functional Skills paper with a hurdle, with the coursework being assumed to be dropped because of the review of the demands of the coursework assessment load initiated by the White Paper.

METHOD

Two sources of data are available for the investigation. The first source comprises of a large sample of GCSE English candidates' marks on Paper 1 and Paper 2. Paper 1 here acts as a proxy for the Functional Skills component. However, the P1 marks do not include all the Functional Skills standards, and some of the P1 marks are not Functional Skills marks, so this method gives only an approximation to the situation were a genuine Functional Skills paper to be available in, say, a pilot examination. The second source of data is the judgement by the panel of senior examiners who were asked to assign Functional Skills levels to Paper 1 scripts.

The drawback of the use of a hurdle on a component is that it may result in a loss of discriminating power in the examination as a whole. One of the main purposes of the current investigation is to test whether the grade boundaries for components or aggregate marks need to be placed too close together or 'squeezed' in order to accommodate the effects of the hurdle, subject to recognition of the limits of the exercise being carried out in retrospect using components not designed specifically for Functional Skills assessment. Once the investigation was underway, however, it was clear that the mark range per grade was a lesser concern than the failure to award grade levels that maintained standards over time using any possible grade boundaries. If it is not possible to award target grades, grade widths become a secondary concern. The effects of the Functional Skills hurdle to cut severely the GCSE pass rates without amelioration was therefore explored.

The effect that a hurdle would have on the reliability of grading would require a study beyond the scope of the current work. It would require a pilot GCSE study to be carried out including a

specially designed Functional Skills test measuring all the Functional Skills skills, and a comparison to be made of the reliability of grading of that GCSE with that of the current English Specification A.

The current grade C boundaries are shown in Table 1 for all components and for the subject options: Tiers F and H. Current boundaries for grade C are set between approximately 52 to 57 *per cent* of the total marks allocated. The grade C boundary raw marks for Papers 1H and 1F are 31 and 30, respectively. These boundary marks appear later in the report in one method of setting a Functional Skills hurdle pass mark for grade C.

Table 1: Grade C boundaries*, GCSE English A Summer 2006

Component Code	Title	Maximum Raw Mark	Maximum Scaled Mark	Grade C Raw Mark	Grade C Scaled Mark	Grade C % of max. mark
3702/1F	ENGLISH A PAPER 1F	54	162	30	90	55.5
3702/2F	ENGLISH A PAPER 2F	54	162	28	84	51.9
3702/CR	ENGLISH A CWK(R & W)	108	108	61	61	56.5
3702/CS	ENGLISH A CWK(S & L)	54	108	31	62	57.4
3702/1H	ENGLISH A PAPER 1H	54	162	31	93	57.4
3702/2H	ENGLISH A PAPER 2H	54	162	29	87	53.7
Option						
3702F	ENGLISH TIER F	N/A	540	N/A	284	52.6
3702H	ENGLISH TIER H	N/A	540	N/A	303	56.1

* See Appendix, Table A, for the full range of grade boundaries.

RESULTS

The aim in this section is to provide evidence about the effect of a Functional Skills hurdle on grade C pass rates in the pseudo-examination consisting either of Papers 1H and 2H at Tier H or of Papers 1F and 2F at Tier F. This is done by applying various hurdles and finding how far the subject grade boundaries need to be adjusted to get back to the original pass rate. This is carried out separately at tiers F and H. The first step was to produce a distribution (Table 2, column (1)) of awarded subject grades for Tier H for a 20 *per cent* (n=46,892) random sample of candidates. A sample was used for ease of processing, as the total population was very large (230,000 candidates). Next the distribution of aggregate marks for Papers 1H and 2H was generated and the cumulative percentages (see column (2)) nearest to those for the original subject grades in column (1) were identified, and the aggregate marks which gave those cumulative percentages were noted (see column (3)). Grade C was originally achieved by 90.5 *per cent* of Tier H candidates in the complete entry, and 90.6 *per cent* were contrived to obtain grade C on the two component pseudo-examination 'Paper 1 plus Paper 2'. The new boundary mark for grade C was 56 marks on the aggregate of Papers 1 and 2.

Table 2: Effect of the judgemental hurdle (36 marks) on Tier H grades

Tier H	Original subject grade (4 components) (Cum %)	P1+P2 grade with no hurdle (Cum %)	Aggregate raw marks for boundary*	P1+P2 grade with hurdle on P1 (36 marks) (Cum %)	Attempt to move (4) as close as poss. to (1) (Cum %)
	(1)	(2)	(3)	(4)	(5)
A*	7.4	7.1	89	7.1	7.1
A	27.3	28.3	78	27.0	27.0
B	62.2	64.2	67	46.0	47.8
C	90.5	90.6	56	47.7	47.8
D	99.0	99.0	40	99.0	99.8

Cols. (2) and (5) are set as close as possible to (1).
 * Normally, aggregate marks are scaled marks, but here raw marks have been used for these equally weighted papers.

The first application of a hurdle was of 36 marks (67 *per cent*) applied to Paper 1. This Level 2 mark was determined by the STAG/AQA judgemental exercise but in fact corresponds exactly with the original Paper 1 **grade B** boundary mark (see Appendix Table A). The hurdle was applied so that no candidate could obtain grade C or better in the subject unless he had obtained at least 36 marks on Paper 1, representing the Functional Skills hurdle. The results are shown in Column (4) of Table 2 and there is a huge reduction in the subject grade B and C awards. Grades A* and A are hardly affected as most of those candidates passed the hurdle. The next step is to try to correct or adjust this pass rate back to its original rate by softening the Paper 2 boundary marks and consequently softening the aggregate boundary marks. But in fact this turns out to be impossible. Even to achieve the very minor changes from column (4) to column (5) of Table 2, the Paper 2 pass mark for grades B and C had to be set to zero from their original levels of 34 and 29 marks, respectively, which is, of course, not a possible action in practice. The extreme insensitivity of the pass rates to even large changes of boundary marks is a feature of the results of the analyses in this paper. In total, 52.2 *per cent* of all candidates failed the hurdle, so it was impossible for the grade C pass rate to exceed 47.8 *per cent* even though 90.6 *per cent* had originally passed at this grade. So, 42.8 *per cent* of all candidates failed to obtain grade C because of the application of the hurdle.

In a second comparison, the hurdle pass mark was lowered to 31 marks, which corresponded to the original Paper 1H grade C boundary. The results are shown in Column (4) of Table 3 and there is a large reduction in the subject grade C awards. Grades A* and A are hardly affected again, but this time grade B is only a little affected too, as most of the grade B candidates passed this lower hurdle. But, in total, 23.9 *per cent* of all candidates still failed the hurdle, so it was impossible for the grade C pass rate to exceed 76.1 *per cent*, which is well below its original value of 90.6 *per cent*. To achieve the very minor increase from 75.6 to 76.1 *per cent*, the Paper 2 pass mark for grade C had to be changed from 29 marks to zero, which is, of course, not sensible. Again, the pass rate is extremely insensitive to changes in grade boundary marks (See Table 3, col. 5).

Table 3: Effect of hurdle (31 marks) on Tier H grades

Tier H	Original subject grade (4 components) (Cum %)	P1+P2 grade with no hurdle (Cum %)	Aggregate raw marks for boundary	P1+P2 grade with hurdle on P1 (31 marks) (Cum %)	Attempt to move (4) as close as poss. to (1) (Cum %)
	(1)	(2)	(3)	(4)	(5)
A*	7.4	7.1	89	7.1	7.1
A	27.3	28.3	78	28.3	28.3
B	62.2	64.2	67	62.1	64.6
C	90.5	90.6	56	75.6	76.1
D	99.0	99.0	40	99.0	99.0

A third hurdle of 23 marks was applied, as determined by the original Paper 1H grade D boundary. This hurdle was applied so that no candidate could obtain grade C or better in the subject unless she had obtained at least 23 marks on Paper 1. This level is now two grades below that indicated judgementally by the examiners in the STAG/AQA exercise as suitable for the Functional Skills hurdle. The results are shown in Column (4) of Table 4 and there is a good fit across all grades awarded as most candidates passed the hurdle. In total, only 3.2 *per cent* of all candidates failed this low hurdle.

Table 4: Effect of hurdle (23 marks) on Tier H grades

Tier H	Original subject grade (4 components) (Cum %)	P1+P2 grade with no hurdle (Cum %)	Aggregate raw marks for boundary*	P1+P2 grade with hurdle on P1 (23 marks) (Cum %)	Attempt to move (4) as close as poss. to (1) (Cum %)
	(1)	(2)	(3)	(4)	(5)
A*	7.4	7.1	89	7.1	7.1
A	27.3	28.3	78	28.3	28.3
B	62.2	64.2	67	64.2	64.2
C	90.5	90.6	56	90.4	90.4
D	99.0	99.0	40	99.0	99.0

The grade C pass rates have also been calculated for all intermediate hurdle marks and for all possible aggregate boundary marks below the original boundary mark (Appendix, Table B). Each row represents a different hurdle mark. Each column represents a different grade C aggregate boundary mark. The pass rates vary very little across the rows, especially for high hurdles near the top of the table. This means that tough hurdles effectively dominate the grade C pass rate, that is, the pass rate is very insensitive to the change in aggregate boundary mark. Only for the bottom

row does the hurdle have no effect on grade C candidates although for 23 to 27 marks the original grade C rate can be achieved by amending the aggregate boundary (see boxed percentages in Appendix Table B). As an example, where the hurdle is 27 marks, the aggregate pass mark can be lowered from 56 to 52 and the pass rate of 90.5 *per cent* recovered. But when the hurdle is just one mark higher than that, i.e. 28 marks, the target pass rate of 90.5 *per cent* cannot be achieved whatever the aggregate boundary.

Similar analyses have been carried out for Tier F. The results are summarised in Appendix Table C and show that the hurdle has dominating effects for Tier F, too. As for Tier H, the first step was to produce a distribution (Table 5, column (1)) of awarded subject grades for Tier F for a 20 *per cent* (n=38,470) random sample of candidates. Next the distribution of aggregate marks for Papers 1F and 2F was generated and the cumulative percentages (see column (2)) nearest to those for the original grades in column (1) were identified, and the aggregate marks which gave the sample cumulative percentages were noted (see column (3)). Grade C was originally achieved by 25.0 *per cent* of Tier F candidates and 25.1 *per cent* of the sample were contrived to obtain grade C on the two component pseudo-examination. The new boundary mark for grade C was 53 marks on the aggregate of papers 1 and 2.

The first application of a hurdle was of 34 marks applied to Paper 1F. This Level 2 mark was determined by the STAG/AQA judgemental exercise but in fact corresponds with a mark four marks higher than the grade C boundary (see Table 1). The hurdle was applied so that no candidate could obtain grade C or better in the subject unless he had obtained at least 34 marks on Paper 1. The results are shown in Column (4) of Table 5 and there is a huge reduction in the subject grade C awards. Only 3.5 *per cent* of candidates achieved grade C using this high hurdle and it is impossible to raise this value by lowering the aggregate grade boundary marks.

Table 5: Effect of the judgemental hurdle (34 marks) on Tier F grades

Tier F	Original subject grade(4 components) (Cum %)	P1+P2 grade with no hurdle (Cum %)	Aggregate raw marks for boundary	P1+P2 grade with hurdle on P1 (34 marks) (Cum %)	Attempt to move (4) as close as poss. to (1) (Cum %)
	(1)	(2)	(3)	(4)	(5)
C	25.0	25.1	53	3.5	3.5
D	60.4	58.9	43	58.9	58.9
E	82.9	83.0	33	83.0	83.0
F	93.6	93.6	22	93.6	93.6
G	97.9	97.9	1 (one)	97.9	97.9

Once again, the extreme insensitivity of the pass rates to even large changes of boundary marks is seen.

It can be seen from Appendix Table C that a hurdle at grade D level (24 marks) on Paper 1F is so low that it has no effect on grade C performances as almost all grade C candidates pass this hurdle. For hurdles of 25 to 27 marks, the aggregate grade C boundary can be lowered to undo the effect of the hurdle. As an example, where the hurdle is 27 marks, the aggregate pass mark can be lowered from 53 to 48 and the pass rate of 25 *per cent* recovered. This involves a lowering of the aggregate boundary by half a grade width, however, which would be undesirable in terms of overall ability of candidates at the boundary. When the hurdle is just one mark higher than that, i.e. 28 marks, the target pass rate of 25 *per cent* cannot be achieved whatever the aggregate boundary mark value.

When the hurdle mark is set at the grade C boundary mark, 30 marks, Appendix Table C shows that the subject grade C pass rate can only be 13 or 14 *per cent* instead of the desired 25 *per cent*. No matter what the aggregate boundary is, the application of this hurdle has irreversibly decreased the pass rate for Tier F.

The correlation between Paper 1F and Paper 2F marks for the 20 *per cent* sample of candidates is 0.65, and between Paper 1H and Paper 2H marks is 0.57. These are not high values but there is no reason to believe that they will be substantially different in a future GCSE English examination.

DISCUSSION

The investigation is flawed to the extent that Paper 1 has been used as a proxy for a Functional Skills test whereas a pilot examination would have been needed to provide a proper basis for study. The current Paper 1 assesses more than the Functional Skills and, conversely, some Functional Skills are not in the present written papers or coursework. Nevertheless, Papers 1 and 2 in summer 2006 have provided useful data to use in this modelling exercise.

Catastrophic effects on the subject pass rates were demonstrated for both tiers, caused by the application of hurdles on Paper 1 (the proxy assessment of Functional Skills). Hurdles set at the current standard of grade D on Paper 1 are low enough to trip up hardly any grade C candidates at subject level (Table 4). But when the hurdle is raised by four marks, the middle of the Paper 1 grade D range is reached. Up to that point the decrease in subject level pass rate is not huge, and it is recoverable – if that is what is wanted, although it appears to act against the spirit of using a hurdle – by lowering the aggregate boundary mark by up to, admittedly, a sizeable half-a-grade-D width. This is the case for both tiers H and F (Appendix Tables C and D). But for hurdles higher than mid grade D on Paper 1, the subject grade C pass rate is sent so low it is not recoverable by any manipulation of aggregate grade boundaries. The hurdle effectively takes complete control of the pass rates which are determined to the nearest one or two *per cent* by the hurdle chosen, and no softening of aggregate grade boundary marks can alter this effect. The Functional Skills component would determine the GCSE pass rate for a high hurdle mark. There is only a four mark range where the hurdle effects are recoverable. Below that range the hurdle has no effect on

subject level grade C and above that range the subject level grade C (and B) can be seriously affected. The reliability of the grade C award under these conditions is limited by the reliability of the Functional Skills component and there would be much wastage of candidate examination time.

For a Functional Skills hurdle to have no effect on subject grade boundaries it must be set at a level not more than a current mid grade D standard on Paper 1. Yet the STAG/AQA exercise produced judgements for Level 2 (Grade C) Functional Skills at a mark that corresponds in terms of the percentage achieving it to the current Paper 1 grade B standard rather than grade C standard. This level is two grades above the position where the hurdle has no effect and one and a half grades above the point where the hurdle effects are barely recoverable. It may be that with candidates' concentration focused by the Functional Skills hurdle in a future examination, the standard of work will rise so that it is as easy for candidates to obtain 36 or 34 marks (Tier H and Tier F) on Functional Skills as it is currently to obtain grade D (24 and 23) on Paper 1. In that case even the high hurdle would have little effect.

One way to overcome the hurdle effects would be to set the hurdle at a low level of performance. The reason for the high judgemental hurdle mark on Paper 1, however, is that 'mastery' of the skills is expected of the candidates. Mastery, of course, requires a high level of competency, and if this mastery requires a demonstration of ALL the skills in the QCA report *Functional English Standards* then a high pass mark that is even higher than the current grade B may be required for Level 2. It should be remembered that not all the Functional Skills skills are present in Paper 1 so the pass mark in a genuine Functional Skills test may perhaps be even harder for candidates to achieve. To overcome the hurdle effects by setting a low mark threshold would appear to be against the spirit of the Functional Skills proposals.

But if a dramatic level of improvement in candidate performance does not happen, what other possibilities are there? Should we try to soften the catastrophic effects of hurdles, or just live with their outcomes? It is argued that hurdle effects on GCSE English ought to be moderated because candidates' achievements could be undermined by poor performance in one Functional Skills component of the examination, with no separate reward available for standards achieved in non Functional Skills elements. It is true that even in the current examination, because of compensation, rewards for good performances on Paper 2 may be undermined by poor performances in Paper 1. But at present the trade-off is even handed. The dominance of the Functional Skills component, however, is uneven and extreme.

The application of soft hurdles is a method by which one element (Functional Skills) can be given importance while not applying a rigid hurdle system. Such a system is implicit in a booklet by French et al (1987).

"To help the examiner discover precisely which aggregation procedure ... reflects his/her judgements of overall performance, the examiner would be asked to compare the performances represented by carefully chosen pairs of profiles of marks." (page 23).

In this method the examiners use a more complicated process of aggregation than merely adding component marks. Their aggregation procedure is a mathematical technique which is applied to their judgements, and in general it is a non-linear algorithm. The effects could in our circumstances be to give Functional Skills importance, but not to let it dominate. Unfortunately, for Functional Skills purposes, this method is not currently available at GCSE. The use of non-linear aggregation algorithms may in general give undue weight to examiners' internal holistic judgements compared to the simple addition of component marks, though it may be preferable to use such a method rather than to suffer extreme hurdle effects.

Pollitt (2004) explains a different method, that of paired comparisons, of aggregating performances and of grading. This method does not use marks, and therefore an appropriate weighting could perhaps be obtained for Functional Skills without it dominating in a catastrophic fashion. Again, the complete reliance on holistic judgements is a far cry from the present compensatory system of simple addition of marks, but is a possibility.

Both methods for soft hurdles have the potential to overcome the extremely adverse effects of the hurdle system. But both methods also have drawbacks and are not currently considered technically feasible, and possibly not theoretically desirable, in GCSE examinations.

If GCSE were to be awarded without recourse to a Functional Skills hurdle, current standards could be maintained without extreme and undesirable hurdle effects. If the Functional Skills element were examined separately, it might be introduced as an independent hurdle to obtaining the Diploma. This would transfer the extreme and undesirable effects from GCSE English to the Diploma. As the Diploma is already designed with three separate hurdles (it must include English, must include mathematics and must include three other GCSE subjects at grade C) the additional hurdle requirement will not be out of place. It is acknowledged, however, that the likely outcome will be that the GCSE English examination grade C standard of the future will be dominated by the functional skills assessment element.

REFERENCES

AQA/STAG (2006) *Functional Skills in GCSE English Awarding and Grading Exercise*, AQA and STAG, the inter-awarding body research committee.

French, S., Slater, J.B., Vassiloglou, M. and Willmott, A.S. (1987) *Descriptive and Normative Techniques in Examination Assessment*, UODLE.

Pollitt, A. (2004) *Let's stop marking exams*, 2004 Philadelphia IAEA Conference paper, UCLES,

APPENDIX

Table A **Component grade boundaries, GCSE English A Summer 2006**
Grade

Component		Maximum	Grade							
Code	Component Title	Raw Mark	A*	A	B	C	D	E	F	G
3702/1F	ENGLISH A PAPER 1F	54	-	-	-	30	24	18	13	8
3702/2F	ENGLISH A PAPER 2F	54	-	-	-	28	23	18	14	10
3702/CR	ENGLISH A CWK(R & W)	108	-	-	-	61	49	37	25	13
3702/CS	ENGLISH A CWK(S & L)	54	-	-	-	31	25	19	13	7
3702/1H	ENGLISH A PAPER 1H	54	46	41	36	31	23	-	-	-
3702/2H	ENGLISH A PAPER 2H	54	46	40	34	29	22	-	-	-
3702/CR	ENGLISH A CWK(R & W)	108	97	85	73	61	49	-	-	-
3702/CS	ENGLISH A CWK(S & L)	54	49	43	37	31	25	-	-	-

