Comparative analysis of A level assessment outcomes for 2008–10

Executive summary

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Introduction

This report is part of our investigation into whether there has been any impact on candidate performance as a result of the changes made to A levels for first teaching in 2008 (and awarded 2010). We drew on data collected from awarding organisations as part of the Awarding Body Data Archive (ABDA) project and forms one element of a series of reports on A levels and assessment outcomes awarded in 2008 and 2010.

We complemented our quantitative study of examination data with a qualitative script analysis. We based our study on a comparison of candidates’ results in English literature, French, geography, mathematics, media, physics and psychology. The A level changes introduced in 2008 that impacted on awards made in 2010 were:

- a change from six to four units in the majority of subjects to reduce the burden of assessment.
- the introduction of stretch and challenge in A2 units.
- the introduction of an A* grade to recognise and reward exceptional performance.

The first teaching of the new A levels started in 2008.

The purpose of the study is twofold:

1. firstly, to establish whether the overall outcomes in the selected subjects were similar between 2008 and 2010, and whether this was true at unit as well as qualification level.

2. secondly, to show whether the patterns of candidates re-taking units were similar between 2008 and 2010.

The awarding organisation specifications looked at cover the majority of students taking each subject in both 2008 and 2010, therefore it is reasonable and feasible to draw considered conclusions from trends found in this work.

\[\text{See Table 1.}\]
1 Grade outcome differences between 2008 and 2010

Introduction of the A* grade

The A* grade had not been implemented in 2008, so in this analysis we modelled the impact of the A* grade in two ways:

1. combining A and A* achievement in 2010 and comparing this “A*/A” grade with the actual grade As in 2008.

2. modelling A* achievement in 2008 and comparing this with the true 2010 results.

When combining the A*/A grade, we found that proportionately more students achieved the top grade in 2010 compared with 2008 in English literature, French, geography, mathematics and physics. Media and psychology saw proportionately fewer candidates achieving the A*/A in 2010.

When modelling the A* grade, we found that higher proportions of candidates were achieving the highest grades (A* to B) in 2010 compared with 2008. Only French and geography saw an increase in the proportion of students achieving the A grade in 2010 compared with 2008.

We identified an interesting pattern emerging in English literature, media, physics and psychology where the A* and B grades increased, but the number achieving the A reduced. For mathematics there was an increase in the proportion of students achieving the A* grade in 2010, while there was a decrease in attainment of all other grades. Fewer candidates achieved the lower grades (that is, D and below) in 2010 compared with 2008.

We can speculate that any levels of improvement and patterns emerging in grade attainment seen in 2010 could be the result of the introduction of the changes to A levels, especially stretch and challenge in the A2 units. However as multiple changes were made, we cannot pinpoint exactly what factor caused this improvement.

Comparison of attainment at AS and A2

We conducted an analysis of attainment at each of AS and A2 in 2008 and 2010 to compare the outcomes. The key findings are outlined below.

At AS there was a mixed pattern of attainment across the subjects in both 2008 and 2010.
There was more consistency in the patterns of attainment for the A2 units. In 2010 there was an improvement across all the subjects compared with results in 2008. We could therefore speculate that the changes made have had a positive impact on attainment in the A2 units. However we cannot be certain which of the changes has had the most impact on candidate scores.

We found no clear pattern of attainment in candidates on the B/C/D boundaries. This was true across all subjects, and at AS and A2.

2 Effect of changes on re-sit patterns in 2008 in comparison with 2010

Re-sit patterns

There were more opportunities to re-sit in 2008 than there were in 2010 as more units (six as opposed to four) were available in the majority of subjects studied for this report. The exceptions to this were mathematics and physics which remained unchanged at six units. This could have had an impact on candidate re-sitting behaviour. Although there was a difference in the volume of re-sits between 2008 and 2010, it is not clear from the data whether this was a direct result of the changes made to A levels.

In all subjects except mathematics, a greater proportion of candidates re-sat in 2008 compared with 2010, as illustrated in Table 1. This was the case for physics, which still has six units, indicating that the number of units may not be a factor in re-sit behaviour. In all subjects the average number of unit re-sits taken per candidate was 1 in both 2008 and 2010 and units; this challenges the assumption that candidates take multiple re-sits for each unit.

<table>
<thead>
<tr>
<th>Subject</th>
<th>2008</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>English literature</td>
<td>55%</td>
<td>37%</td>
</tr>
<tr>
<td>French</td>
<td>66%</td>
<td>57%</td>
</tr>
<tr>
<td>Geography</td>
<td>70%</td>
<td>65%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>71%</td>
<td>74%</td>
</tr>
<tr>
<td>Media</td>
<td>52%</td>
<td>34%</td>
</tr>
<tr>
<td>Physics</td>
<td>75%</td>
<td>72%</td>
</tr>
<tr>
<td>Psychology</td>
<td>66%</td>
<td>62%</td>
</tr>
</tbody>
</table>

The proportion of candidates who achieved grades A and B taking at least one re-sit reduced in 2010 in all subjects except mathematics. Fewer candidates re-sat the AS units in 2010 compared with 2008.
In 2010 there was a decline in the total number of re-sits, with more candidates not re-sitting any unit in any subject, with the exception of mathematics. In French, geography, mathematics, physics and psychology at least a quarter of the 2010 cohort did not take any re-sits over the two-year course. Over half the cohort in English literature and media did not take any re-sits over the two-year course.

**Impact of re-sitting on outcomes**

The Uniform Mark Scheme (UMS) mark is the score a student gets once the papers are given the appropriate weighting for the number of questions and difficulty.

In all subjects except mathematics the mean (average) improvement in UMS due to re-sitting was greater in 2010 compared with 2008. This difference was statistically significant so it can be inferred that the changes made to A levels have had a positive impact on candidates’ performances. At AS and A2 across both years, we found that that the units chosen to be re-sat by candidates were not always the ones that would give them the biggest improvement in UMS. Candidates chose to re-sit those units that were externally rather than internally assessed.

Despite there being less re-sitting, we found that in 2010 candidates taking all of the subjects studied for this report saw more improvement to their grades as a result of re-sitting than the achievement seen in 2008. Proportionately more candidates saw an overall increase in one grade, over the two-year course, due to re-sitting in 2010 compared with 2008. However we should be cautious in drawing any conclusions from this since more grades were available in 2010 as a result of the introduction of the A*. It is still worthy of note, however, as this improvement in grade attainment could be linked to other aspects of the changes.

**The types of candidates re-sitting**

Although overall there was less re-sitting in 2010, the analysis shows that some types of centre did not follow this trend. This was most common amongst sixth form centres and maintained schools (non-selective) their candidates re-sat units more often in 2010.

In general, students were in independent schools took fewer re-sits in 2010 compared with 2008, although geography was an exception to this.

### 3 Conclusion

We found a difference in grade attainment between 2008 and 2010, especially when modelling the A* grade. However as several changes were made to A levels between the two years, we cannot be clear exactly what change(s) caused this. We also found a difference in the pattern of re-sits in 2010 compared with 2008. Our key findings are:
the two ways of modelling A* produced different conclusions at subject level, but in general proportionately more candidates received the higher grades in 2010 compared with 2008.

patterns of grade attainment between 2008 and 2010 were much more consistent for the A2 units than the AS.

at A2 grade attainment in 2010 was better than in 2008; however we cannot be clear whether this was a result of the changes made to A levels.

it was not clear whether the changes had any impact on those candidates on the intermediate (B/C/D) boundaries.

fewer re-sits were taken in 2010 compared with 2008.

candidates who re-sat in 2010 saw a significant improvement in the UMS achieved in the majority of subjects studied.

in 2010 there was an overall increase in the proportion of candidates seeing one grade increase due to re-sitting compared with 2008.

in 2010 more candidates did not re-sit any units.
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