

RESEARCH AND ANALYSIS

Inter-subject comparability in GCSEs and A levels in summer 2024

Authors

- Astera Brylka
- Qingping He

Contents

Authors	2
Summary	4
1. Introduction	6
2. Data and analysis	6
2.1 Data	6
2.2 Methods of analysis	9
3. Results and discussion	11
3.1 GCSE subjects	11
3.2 A level subjects	20
4. Concluding remarks	29
References	30
Appendix A Additional tables	32

Summary

This technical report, which follows on from analyses undertaken by He and Black (2020), He and Cadwallader (2022, 2023), and Brylka and He (2024) uses statistical methods to investigate the comparability of grading standards across subjects for GCSEs and A levels in summer 2024. Inter-subject comparability is explored over a period of 3 years:

- summer 2024, when grades were awarded through normal exams with support materials in the form of formulae and revised equations sheets available to students in GCSE mathematics, physics and combined science (Department for Education, 2023a; Ofqual, 2024a)
- summer 2023, when grades were awarded through normal exams (first time after the COVID-19 pandemic) with protection applied to guard against the potential for national performance to be lower than in 2019 (Department for Education, 2023b; Ofqual, 2022, 2023), and
- summer 2019, when grades were awarded through normal exams (prior to the COVID-19 pandemic).

In this report, 'subject difficulty' is based on statistical analysis of inter-subject comparability. Statistical approaches to inter-subject comparability use cohort-level data to compare the relative likelihood of students achieving a grade in certain subjects, on the basis of past attainment or concurrent attainment derived using grades achieved in all GCSE or A level subjects. This involves an assumption that there is a common underlying dimension of 'ability' which allows us to make meaningful comparisons between subjects as diverse as, for example, art and design, and physics. The methods are described in more detail in the 'Methods of analysis' section.

Although statistical approaches are valuable, there are limits to the extent to which strong conclusions may be drawn without considering other evidence. For example, it would be inappropriate to conclude whether or not specific subjects can be said to be graded more harshly than others on the basis of statistical evidence alone. This is because differences in statistical difficulty between subjects can be caused by many factors which can vary substantially between subjects and over time but were not considered in the methods used to derive the difficulty measures. These factors, among others, could include: the nature of the subject in terms of skills and knowledge to be learnt, the performance standards required to achieve individual grades, the level of demand, allocation of teaching time and other resources, motivation of students, efficiency and effectiveness of teaching and learning, and uptake by different population subgroups. More detailed discussion of this topic is provided in Ofqual's previous work on inter-subject comparability (Ofqual, 2015).

Two strands of analysis were conducted and reported here:

- Empirical analysis of the relationships between subject grade outcomes and prior attainment for prior attainment matched candidates
- Rasch modelling of the relationships between grade outcomes in different subjects for all candidates.

The main findings from this study are:

 Overall, based on these specific analyses, GCSE subjects in 2024 were graded slightly less leniently than in 2023. Subjects were graded very slightly less leniently

- in 2024 than in 2019, except for grade 4 where they were graded similarly to 2019. Differences in the grading of A level subjects in 2024 compared to 2023 were minimal, on the basis of the statistical measures considered here. This was also true for 2024 in comparison with 2019 with marginal differences at A* overall between the two years.
- The rank order of statistical grade difficulty changed across the 3 years of study. For GCSE subjects, on average, changes in statistical grade difficulty orders between 2024 and 2019 are slightly larger than or similar to changes between exams in years before the COVID-19 pandemic. Changes in rank order between 2024 and 2023 are slightly smaller than changes between years prior to the pandemic. For A level subjects, on average, changes in statistical difficulty orders between 2024 and 2019 are comparable to changes between other years of normal exams at the overall subject level and at grade C, but larger at grades A and A*. Changes in statistical difficulty orders between 2024 and 2023 are generally comparable to changes between other years of normal exams at grades A and A* but somewhat smaller at grade C and the overall subject level.
- In combination, the analysis of the distributions of statistical grade difficulties and changes to rank order positions suggest that the grading approach in 2024 has resulted in relationships between subjects that closely resemble those from 2019, as well as those from 2023 when grades were awarded by exams with adaptations and different grading policies.

Through the period of different assessment and grading approaches being in place between 2019, 2023 and 2024, there have been changes in the relationships between subjects at both GCSE and A level. This technical report provides information about how the relative difficulty of subjects, as defined statistically, has differed between these years.

1. Introduction

In summer 2024, all GCSE and A level exams largely followed the pre-pandemic (COVID-19) arrangements. However, for GCSE maths, physics and combined science exams, formulae and equation sheets were still provided (Department for Education, 2023a; Ofqual, 2024a).

This study represents a follow-up to the analyses undertaken by He and Black (2020), He and Cadwallader (2022, 2023), and Brylka and He (2024), and explores intersubject comparability over a period of 3 years when national exams took place, although with different approaches and grading policies applied: summer 2024, summer 2023, and summer 2019. The analysis aims to answer the following main research question:

How did the statistical inter-subject comparability of grades awarded at GCSE and A level in 2024 compare with that observed in 2019 and 2023?

2. Data and analysis

2.1 Data

The primary data analysed in this investigation was the results data supplied to Ofqual by exam boards (EBs), covering 2019, 2023 and 2024 for both GCSEs and A levels. Prior attainment was based on normalised mean KS2 scores for GCSEs, extracted from the National Pupil Database (NPD), and normalised mean GCSE scores for A level candidates, calculated from their GCSE grades awarded 2 years previously. For the 2024 data, the match rate with prior attainment data is over 80% for most of the GCSE subjects and over 85% for most of the A level subjects.

Tables 1 and 2 list the GCSE and A level subjects for 2019, 2023 and 2024 that were included in the analysis (Note: For results to be more reliable, only subjects with entries greater than 3,000 for GCSEs and 1,000 for A levels were included in the analysis in a particular year).

Table 1 GCSE subjects analysed in this report (including acronyms for some subjects used in subsequent figures and tables)

Subject	2019	2023	2024
Art and Design: Three-dimensional design (AD_3DStudies)	Х	Х	Х
Art and Design: Art, craft and design (AD_ACD)	Х	Х	Х
Art and Design: Fine art (AD_FA)	Х	Х	Х
Art and Design: Graphics (AD_Graphics)	Х	Х	Х
Art and Design: Photography (AD_Photog)	Х	Х	Х
Art and Design: Textile design (AD_Textiles)	Х	Х	Х
Arabic	Х	Х	Х
Biology	Х	Х	Х
Business studies (Business)	Х	Х	Х
Combined science (Cbd Science)	Х	Х	Х
Chemistry	Х	Х	Х
Chinese	Х	Х	Х
Citizenship studies (Citi_Studies)	Х	Х	Х
Classical civilisation (Class Civil)	Х	Х	Х
Computer Science (Computing)	Х	Х	Х
Design and technology (D&T)	Х	Х	Х
Dance	Х	Х	Х
Drama	Х	Х	Х
Economics	Х	Х	Х
English language (Eng_Lang)	Х	Х	Х
English literature (Eng_Lit)	Х	Х	Х
Film_Studies (Film studies)	Х	Х	Х
Food preparation and nutrition (Food_P&N)	Х	Х	Х
French	Х	Х	Х
Geography	Х	Х	Х
German	Х	Х	Х
History	Х	Х	Х
Italian	Х	Х	Х
Latin	Х	Х	Х
Mathematics	Х	Х	Х
Media studies (Media_Studies)	Х	Х	Х
Music	Х	Х	Х
Physical education (PE)	Х	Х	Х
Physics	Х	Х	Х
Polish	Х	Х	Х
Psychology	Х	Х	Х
Religious studies (RS)	Х	Х	Х
Religious studies: short course (RS_SC)	Х		
Russian		Х	Х
Sociology	Х	Х	Х
Spanish	Х	Х	Х
Statistics	Х	Х	Х
Urdu	Х	Х	Х
Total	42	42	42

Table 2 A level subjects analysed (including acronyms for some subjects used in subsequent figures and tables)

Subject	2019	2023	2024
Accounting	Χ	Χ	Χ
Art and Design: Three-dimensional design (AD_3DS)	Χ	Χ	Χ
Art and Design: Art, craft and design (AD_ACD)	Χ	Χ	Χ
Art and Design: Fine art (AD_FA)	Χ	Χ	Χ
Art and Design: Graphics (AD_Graphics)	Χ	Χ	Χ
Art and Design: Photography (AD_Photog)	Χ	Χ	Х
Art and Design: Textile design (AD_Textiles)	Χ	Χ	X X X X X X X
Biology	Χ	Χ	Χ
Business studies (Bus_Studies)	Χ	Χ	Χ
Chemistry	Χ	Χ	Χ
Chinese	Χ	Χ	Χ
Classical civilisation (Class_Civil)	Χ	Χ	Χ
Computer science (Computing)	Χ	Χ	Χ
Dance	Χ	Χ	Χ
Drama and theatre studies (Drama_TS)	Χ	Χ	Χ
Design and Technology: Product design (DT_PD)	Χ	Χ	Χ
Economics	Χ	Χ	Х
English language (Eng_Lang)	Х	Х	Х
English language and literature (Eng_LangLit)	Χ	Χ	Χ
English literature (Eng_Lit)	Χ	Χ	Χ
Environmental studies			Χ
Film studies (Film_Studies)	Χ	Χ	Χ
French	Χ	Χ	Χ
Further mathematics (Fur_Maths)	Χ	Χ	Χ
Geography	Χ	Χ	Χ
Geology	Χ	Χ	Χ
German	Χ	Χ	Χ
History	Χ	Χ	Χ
Latin	Χ	Χ	
Law	Χ	Χ	Χ
Mathematics	Χ	Χ	Χ
Media studies (Media_Studies)	Χ	Χ	Χ
Music	Χ	Χ	Χ
Music technology (Music_Tech)	Χ	Χ	Χ
Physical education (PE)	Χ	Χ	Χ
Philosophy	Χ	Х	Х
Physics	Χ	Χ	Χ
Politics	X	X	X
Psychology	Х	Χ	Χ
Religious studies (RS)	Х	Х	Χ
Russian			Χ
Sociology	Х	Х	Χ
Spanish	Х	Х	Χ
Total	41	41	42

2.2 Methods of analysis

Methods used for analysing the data were presented in detail in the reports by He and Black (2020) and He and Cadwallader (2022, 2023). In brief, 2 approaches were used in the analysis:

- variability in the relationship between subject grade outcomes and prior attainment, which was used as a proxy for ability (based on prior attainment-matched candidates)
- variability in the relationship in grade outcomes between subjects through mathematical modelling using the Rasch model (based on all candidates)

Analysis based on prior attainment-matched candidates

In the first approach, a prior attainment weighted mean grade (WMG) for a subject was calculated for each year. This involved classifying all prior attainment-matched candidates in a specific year into one of 10 prior attainment bands based on their normalised mean KS2 scores (for GCSEs) or normalised mean GCSE scores (for A levels). Each prior attainment score band has a similar number of candidates. For candidates taking a specific subject, the average grade in the subject for those falling into each score band was calculated. The mean of these average grades across the 10 score bands are the weighted mean grade for the subject. This weighted mean grade represents the expected average grade from all prior attainment-matched candidates, were the subject to be taken by all matched candidates from the population (in other words, if it had been taken by the entire cohort of GCSE or A level students with valid prior attainment measures, not just those who actually took it). WMG is used as a measure of overall difficulty of the subject. Subjects with high WMG values (higher grade outcomes) are said to be statistically 'easier' than subjects with low values (lower grade outcomes). The difficulty (or facility) of a subject defined this way is independent of the ability distribution of the candidates taking the subject and can be compared over time and between subjects. Since normalised KS2 scores and GCSE scores were used, WMG values can be compared between different years.

Analysis based on Rasch modelling of all candidates

For a specific year, all GCSE (or A level) subjects are analysed using the Rasch model to generate an ability estimate for each candidate and a difficulty estimate for each grade in a subject (except for grade 1 in GCSEs and U for A levels¹ which were used as reference grades). Assuming that the average ability of the candidates included in the analysis is the same across the years of analysis, the grade difficulty measures from different years can be placed on the same measurement scale and can be compared directly (for example, when the average ability of candidates is set to zero in each year and the unit of logits is used). The difficulty of a subject at a specific grade in a specific year is related to the average Rasch ability of the candidates achieving that grade. Specifically, in this study, the Rasch difficulty at a specific grade N in a subject is

¹ Grade 1 rather than U was used as the reference category for GCSEs in order to resolve the problem of disordered categories, disordered thresholds and large misfit associated with the reference categories when running the Rasch model. U was treated as missing and excluded from the analysis. For A levels, letter grades were converted into numerical values representing ordered category scores: U→0, E→1, D→2, C→3, B→4, A→5, and A*→6.

defined as the ability at which the expected grade is N-0.5. Subject 1 is said to be statistically 'more difficult' (or 'harder') than Subject 2 at grade X if the average ability of the candidates receiving X in Subject 1 is higher than that of the candidates in Subject 2. In other words, candidates with similar Rasch abilities would have achieved lower grades in Subject 1 than in Subject 2. Similarly, a subject is more 'difficult' in year Y1 than year Y2 at grade X if the average ability of the candidates receiving X in Y1 is higher than that of the candidates in Y2.

The mean of the difficulties from grade 3 to grade 8 for a GCSE subject and from D to A for an A level subject is used as the overall measure of statistical difficulty for the subject. The use of these particular grades ensures a more stable estimate of the overall difficulty for the subject.

To make the comparison of grade difficulties between subjects in the same year or across different years more meaningful, for GCSEs, the unit of difficulty in logits was converted to a unit of grade width (GW) by dividing the original difficulty value by the average grade gap in logits between grade 8 and grade 3 (the average grade gap in logits between grade 8 and grade 3 is calculated as the difference in logits between average difficulty at grade 8 and that at grade 3 divided by 5, which is equivalent to one grade width) for each year. For A levels, the average grade gap in logits between grades A and D is equivalent to one grade width (GW). The difficulty measures in unit of GW will also be directly comparable between years. An advantage of the use of GW for Rasch difficulty measures is that the effect of differences in candidates' ability distributions (in terms of the shape of the distribution, not the mean) across years is eliminated.

Limitations

As with our previous reports, care needs to be taken when interpreting the statistical measures of subject difficulty reported in this paper. The difficulty measures (overall or at specific grades) are not direct measures of the performance standards required to achieve the grades in a subject. They are also not direct measures of subject demand or students' efforts. Differences in statistical difficulty between subjects reflect differences in grade outcomes between subjects for candidates with similar levels of prior attainment or ability derived from the Rasch model. Such differences can be caused by many factors which can vary substantially between subjects and over time but were not considered in the methods used for this study. These factors, among others, could include: the nature of the subject in terms of skills and knowledge to be learnt, the level of demand, the performance standards required to achieve individual grades, allocation of teaching time and other resources, motivation of students, efficiency and effectiveness of teaching and learning, uptake by different population subgroups, and relative leniency or severity in grading.

There are also limitations associated with the use of the Rasch model, including violation of the unidimensionality assumption (that is, the exams are assumed to measure a single ability in common), unrepresentativeness of the samples analysed, missing data, and imperfect data-model fit. All this must be kept in mind when reading this report and interpreting the results.

As with previous reports (see He and Black, 2020; He and Cadwallader, 2022, 2023; Brylka and He, 2024), the focus of this analysis is on comparability at grades 4, 7 and 9 between GCSE subjects and grades C, A and A* between A level subjects.

3. Results and discussion

This section discusses the main results from the analysis. Results for GCSEs are presented first, followed by results for A levels.

3.1 GCSE subjects

3.1.1 Relationship with prior attainment at KS2

Figure 1 shows the relationship between mean GCSE grade and normalised KS2 score for candidates with a valid KS2 score for 2019, 2023 and 2024. The strength of the correlation between the 2 variables is strong and similar across the 3 years. To some extent, differences in intercept between years reflect differences in overall grade outcomes (or difficulty) for candidates with similar normalised prior attainment at KS2 when the values of the slope of regression lines are similar.

Figure 1 Relationship between candidates' mean GCSE grade and normalised KS2 score in 2019 (top-left), 2023 (top-right) and 2024 (bottom-left).

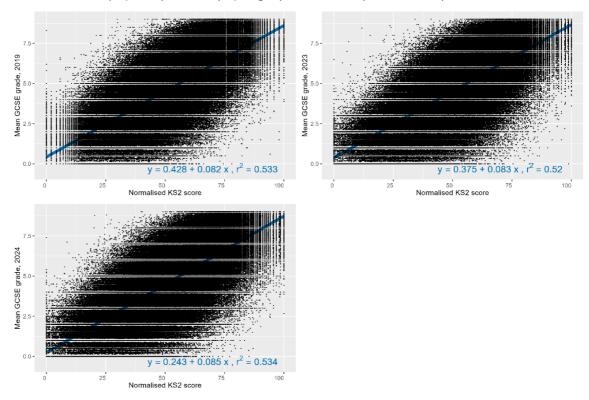
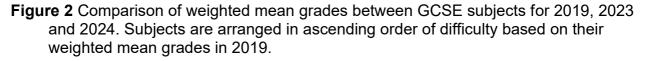
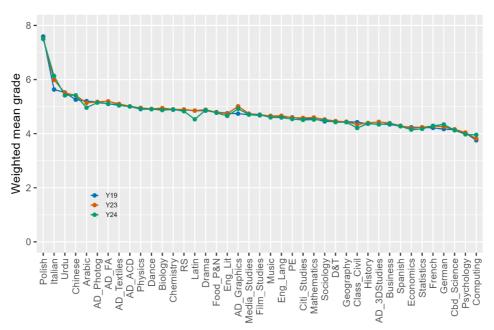


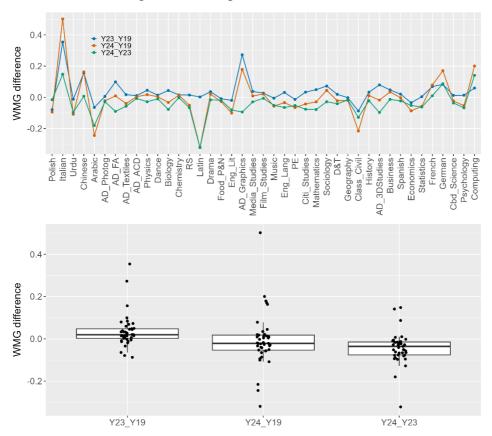
Figure 2 compares weighted mean grade (WMG) across the GCSE subjects for 2019, 2023 and 2024. In Figure 2, subjects are arranged in ascending order of difficulty in 2019 based on their weighted mean grades. That is, subjects to the right are statistically more difficult, based on this measure, than those to the left in 2019. The WMG values from 2024 for all the subjects, except for Italian, Latin, Arabic, and graphics are very similar to those in 2019 and 2023. The close resemblance between the patterns of the WMG values from 2024 and 2019 indicates the intended return to the pre-pandemic grading standards from 2019.





The top graph in Figure 3 shows changes in WMGs between pairs of years for individual subjects and the bottom graph shows the distributions of changes across subjects in more detail. In the top graph, subjects are arranged in ascending order of difficulty based on their weighted mean grades in 2019 (see also Table A1 in Appendix A). Positive values indicate a decrease in apparent statistical subject difficulty whereas negative values indicate an increase. For example, GCSE in Urdu has a value of -0.095 when comparing 2024 and 2023, which indicates that there has been some increase in apparent subject difficulty in 2024 compared with 2023, based on this measure. Of particular interest are the changes in subject WMGs between 2024 and 2019 as they allow us to compare subject WMGs from before the pandemic (2019) with 2024. Differences in WMG between 2024 and 2019 vary from -0.320 for Latin to 0.502 for Italian, with a mean of -0.007 across the subjects, suggesting that subjects in 2024 on average were graded similarly to 2019. These differences are somewhat smaller than the differences between 2023 and 2019. Differences in WMG between 2024 and 2023 vary from -0.322 for Latin to 0.148 for Italian, with a mean of -0.042, suggesting that subjects in 2023 on average were graded slightly more leniently than in 2024. The largest change is noted for Latin which has its WMG in 2024 almost one-third of a grade lower than in 2023, followed by Arabic which WMG is about one-fifth of a grade lower in 2024 than in 2023. Italian and computing have their WMGs in 2024 higher by slightly less than one-seventh of a grade as compared with 2023. The vast majority of subjects have similar WMGs in 2024 to those in 2023.

Figure 3 Comparison of changes in subject population weighted mean grade between 2024/2023 and 2019 and between 2024 and 2023 for the GCSE subjects analysed. In the top graph, subjects are arranged in ascending order of difficulty based on their weighted mean grades in 2019.



3.1.2 Rasch modelling

This section discusses how subject difficulties changed between years at individual grades and the overall subject level through Rasch modelling of all candidates included in the analysis.

Relative Rasch grade difficulty distribution

The graphs in Figure 4 compare statistical subject mean difficulty and statistical difficulties at grades 4, 7 and 9 between GCSE subjects in GW unit across the 3 years of analysis based on the Rasch model. In each of the graphs, subjects are arranged in ascending order of statistical difficulty in 2019 (that is, in 2019 subjects on the right were statistically more difficult, based on these measures, than those on the left).

At the overall level and at individual grades, subjects in 2024 were graded similarly to 2019. Subjects in 2023 were graded very slightly more leniently than in 2024 and 2019. It is worth noting that in 2024 grading in German (particularly at grades 7 and 9) and French (particularly at grade 9) more closely followed grading in 2023 than in 2019. This is related to the adjustments made in 2023 and 2024 to support a closer alignment in grading standards between GCSE French and German and GCSE Spanish (see Ofqual, 2019; 2024b).

Figure 4 Comparison of mean difficulty (top) and difficulties at grades 4 (upper-middle), 7 (lower-middle) and 9 (bottom) for GCSE subjects for 2019, 2023 and 2024 estimated using the Rasch model. Subjects are arranged in ascending order of difficulty in 2019.

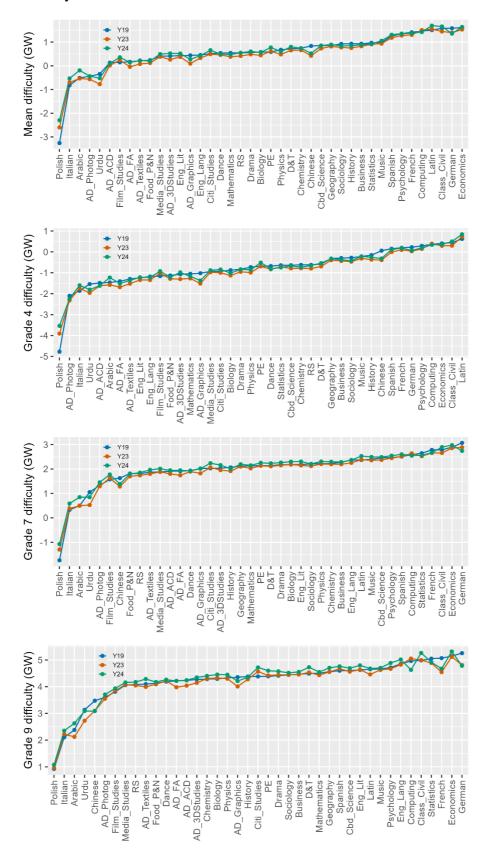


Table 3 lists the range and standard deviation of grade difficulties in GW. Note that, the smaller the range and standard deviation of difficulties, the closer the alignment in terms of grading difficulty between the subjects.

Table 3 indicates that the standard deviation of relative grade difficulties (in GW unit) between the subjects in 2024 is slightly smaller than or similar to that in 2019 and 2023 at the overall subject level and at individual grades. At the overall subject level and at all grades, the ranges of statistical grade difficulties in 2024 are similar to those in 2023 and smaller than those in 2019.

Table 3 Standard deviation and range of statistical grade difficulties (in GW) for GCSE subjects for 2019, 2023 and 2024.

Voor		SD	(GW)	
Year	Mean	G4	G7	G9
2019	0.838	0.927	0.810	0.831
2023	0.766	0.848	0.766	0.837
2024	0.720	0.808	0.717	0.806
		Rang	ge (GW)	
	Mean	G4	G7	G9
2019	4.871	5.395	4.808	4.335
2023	4.147	4.630	4.187	4.160
2024	3.991	4.381	4.050	4.240

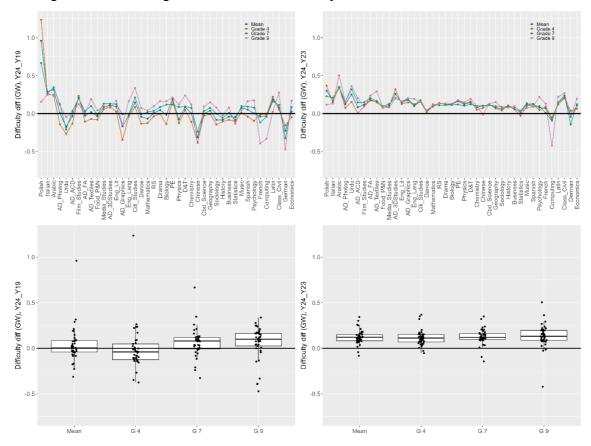
Change in statistical grade difficulty

To examine how statistical subject grade difficulties have changed in more detail between 2024 and 2019, and between 2024 and 2023, Figure 5 shows distributions of changes in statistical difficulties at grades 4, 7, 9 and at the overall subject level between years for the GCSE subjects analysed (again in GW unit). In the top graphs in Figure 5, subjects are arranged in ascending order of mean difficulty in 2019. Positive values indicate an increase in apparent difficulty whereas negative values indicate a decrease.

Average changes in difficulty between 2024 and 2019 across the subjects analysed are 0.04 grade (subject mean), -0.01 grade (grade 4), and 0.06 grade (grades 7 and 9). Chinese and German are noticeably statistically easier in 2024 than in 2019 at the overall subject level and at individual grades. The same is true for Urdu and graphics, except for grade 9 for Urdu and grade 7 for graphics at which the difficulties in both subjects are comparable between 2024 and 2019. French and computing are noticeably easier in 2024 than in 2019 at grade 9, but comparable at the overall subject level and at other grades. For French, German and computing, the observed decrease in statistical difficulty in 2024 compared with 2019 likely results from the adjustments applied to grading standards in these subjects in the last 2 years. These include the adjustments implemented consecutively in 2023 and 2024 to support a closer alignment of grading standards between GCSE French, German and GCSE Spanish (see Ofqual, 2019, 2024b). In 2024, a single adjustment was applied also in computing, to align its grading standards over time since the introduction of this subject in 2012 (see Ofqual 2024b, 2024c). Among subjects that increased their statistical difficulty in 2024

compared with 2019 are Polish (substantially harder), and Arabic, Italian, Latin (except for grade 9), film studies, PE, and citizenship studies (slightly harder).

Figure 5 Changes in Rasch grade difficulties for GCSE subjects between 2024 and 2019 (left) and between 2024 to 2023 (right). In the top graphs, subjects are arranged in ascending order of mean difficulty in 2019.



Subjects on average in 2024 are statistically more difficult than in 2023 by around 0.12 grade at the overall subject level and at grade 4, and by 0.13 grade at grade 7 and 0.14 at grade 9. Dance and statistics are the subjects with the smallest increase in statistical difficulty from 2023 to 2024 at the overall subject level and at all grades. The same is true for German and computing, except for grade 7 for German and grade 9 for computing at which subject difficulty in 2024 somewhat decreased as compared to 2023. Arabic, Urdu, classical civilization, and 3D studies are among the subjects with largest increases in difficulty in 2024 relative to 2023, based on this measure.

Changes in statistical grade difficulty rank orders

Subjects were rank ordered based on mean statistical difficulty and difficulties at grades 4, 7 and 9 separately for 2019, 2023 and 2024, with the lowest rank (first) representing the easiest subject and highest rank the most statistically difficult subject. Figure 6 shows the distribution of changes in statistical subject difficulty rank order positions between 2 years (also see Table A2 in Appendix A). Positive values indicate an increase in statistical difficulty order whereas negative values indicate a decrease in difficulty order.

At the overall subject level and at grades 4 and 9, changes in statistical grade difficulty orders between 2024 and 2019 are generally comparable to changes between 2023 and 2019. Changes between 2024 and 2023 are substantially smaller than changes between 2024 and 2019 and changes between 2023 and 2019. This suggests that at the overall subject level and grades 4 and 9, statistical grade difficulty orders of individual subjects in both 2024 and 2023 were broadly similar to those in 2019. At grades 7, changes in statistical grade difficulty orders between 2024 and 2019 are slightly larger than changes between 2023 and 2019 and changes between 2024 and 2023.

Figure 6 Distributions of changes in statistical grade difficulty rank order positions in GCSE subjects between 2024/2023 and 2019 and between 2024 and 2023.

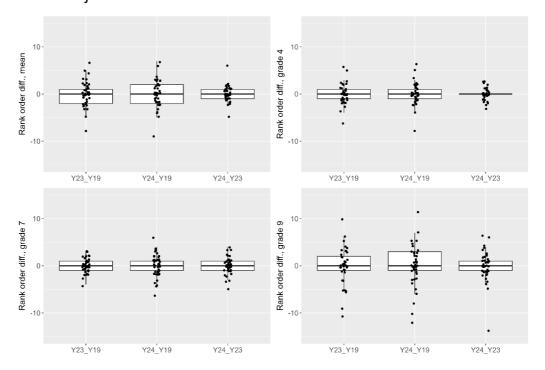
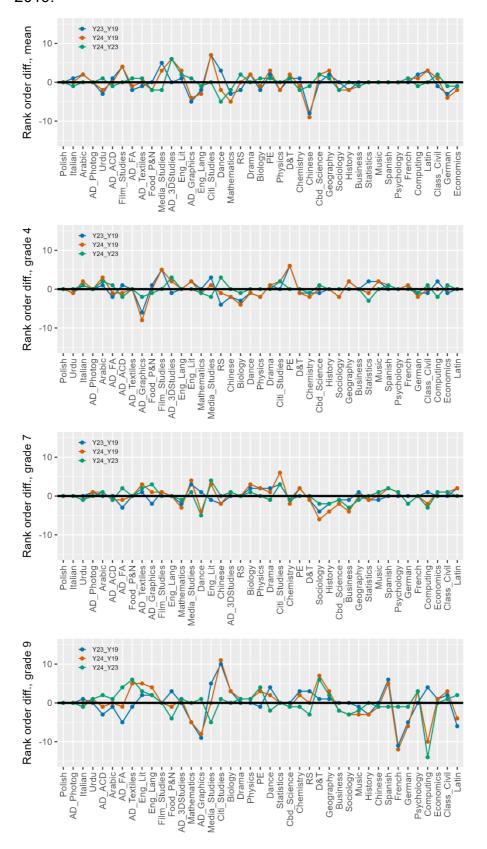


Figure 7 shows detailed changes in statistical difficulty order positions between 2024/2023 and 2019, and between 2024 and 2023 for individual subjects (also see Table A2 in Appendix A). In Figure 7, subjects are arranged in ascending order of statistical grade difficulty in 2019. Again, positive values indicate increase in rank order position (becoming more difficult statistically) whereas negative values indicate decrease in statistical difficulty order position. Changes in rank order positions between 2024/2023 and 2019 and between 2024 and 2023 at grade 9 are somewhat larger than changes at grades 4 and 7 and at the overall subject level.

Between 2024 and 2019, only a few subjects changed their statistical difficulty by more than 5 positions at the overall subject level and at individual grades. At the overall subject level, citizenship studies increased its statistical difficulty position by 7 and 3D studies by 6, whereas Chinese decreased its statistical difficulty position by -9. At grade 4, graphics and PE changed their rank order position by -8 and 6 positions, respectively. At grade 7, citizenship studies increased its statistical difficulty position by 6 and sociology decreased it by -6. At grade 9, citizenship studies (11) and D & T (7) increased their statistical difficulty position by more than 5, whereas French (-12), computing (-10), graphics (-8) and German (-6) decreased their statistical difficulty order position by more than 5.

Figure 7 Distributions of change in statistical difficulty rank order positions overall and at individual grades for GCSE subjects between 2024/2023 and 2019 and between 2024 and 2023. Subjects are arranged in ascending order of difficulty in 2019.



Between 2024 and 2023, at the overall subject level, only 3D studies (6 positions) changed its rank order position by more than 5. No subject changed its rank order position by more than 5 at grades 4 and 7. At grade 9, only computing (-14 positions), and D & T and textiles (6 positions each) changed their statistical difficulty order position by more than 5.

To see how changes in statistical difficulty orders between 2024 and 2019/2023 compare with changes between years of normal exams prior to the pandemic, Table 4 lists values of absolute average change and standard deviation of changes of statistical difficulty orders at the overall subject level and at 4/C, 7/A and 9/A* between 2024 and 2019/2023 and between 2011, 2012 and 2013 (see He and Cadwallader, 2022).

Changes in statistical difficulty orders between 2024 and 2019 are slightly higher at the overall subject level and generally similar at individual grades to changes between 2013 and 2011. Changes between 2024 and 2023 are slightly smaller than changes between pre-pandemic years.

Table 4 Absolute change per subject in statistical grade difficulty rank order and standard deviation of changes in statistical difficulty orders for GCSE subjects.

Outdo	V	Change in rank	order
Grade	12-11 13-12 13-11 24-19 24-23 12-11 13-12 C/4 13-11 24-19 24-23 12-11 13-12 A/7 13-11 24-19 24-23 12-11 13-11 13-12	Average change	SD
	12-11	1.600	2.330
	13-12	1.714	2.438
Mean	13-11	1.943	2.461
	24-19	2.098	2.897
	24-23	1.122	1.667
	12-11	1.086	1.586
	13-12	1.543	2.402
C/4	13-11	2.057	2.859
	24-19	1.463	2.242
	24-23	0.780	1.230
	12-11	1.657	2.541
	13-12	1.771	2.849
A/7	13-11	1.943	2.662
	24-19	1.756	2.327
	24-23	1.171	1.682
	12-11	2.743	4.113
	13-12	2.057	2.839
A*/9	13-11	3.029	4.641
	24-19	2.976	4.248
	24-23	2.049	3.201

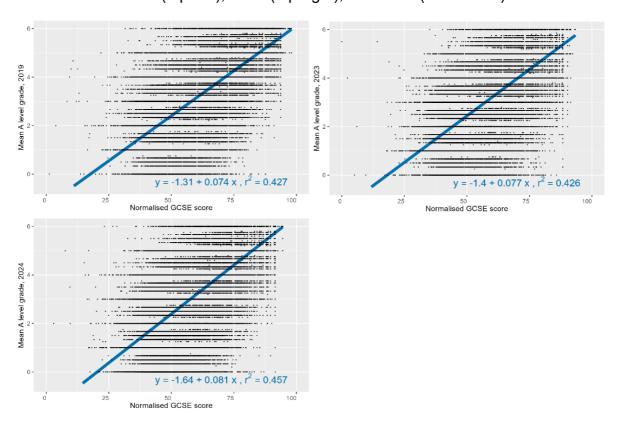
3.2 A level subjects

This section discusses results from analysis of the A level subjects.

3.2.1 Relationship with prior attainment at GCSE

Figure 8 shows the relationship between mean A level grade and normalised mean GCSE score for candidates with valid mean GCSE scores for 2019, 2023 and 2024. The 2 measures are reasonably highly correlated over the 3 years of study, although the correlation is not as high as that between mean GCSE grade and normalised KS2 score. The values of the regression coefficient and intercept in 2023 are similar to the values in 2019. In 2024, the regression coefficient is comparable to 2023 but slightly higher than in 2019. The intercept in 2024 is slightly lower than that in the other years, whereas the regression slope is slightly steeper.

Figure 8 Relationship between candidates' mean A level grade and normalised mean GCSE score in 2019 (top-left), 2023 (top-right), and 2024 (bottom-left).



As with GCSEs, a prior attainment (represented by normalised mean GCSE score) weighted mean grade (WMG) for each A level subject was calculated for 2019, 2023 and 2024. This WMG comparison is presented in Figure 9 (subjects are arranged in ascending order of difficulty in 2019 based on their WMG). Similar to GCSEs, the WMG values in 2024 for all the subjects are comparable to those in 2019 and 2023. The close resemblance between the patterns of the WMG values in 2024 and 2019 indicates the intended return to the pre-pandemic grading standards before 2019. It is stressed that, once again, the methods used to derive the different subject difficulty measures have important limitations. It would be inappropriate to use the findings from this analysis in

isolation from other evidence when deciding, whether or not specific subjects can justifiably be said to be graded more harshly or leniently than others.

Figure 9 Comparison of weighted mean grades in A level subjects for 2019, 2023 and 2024. Subjects are arranged in ascending order of difficulty based on their weighted mean grades in 2019.

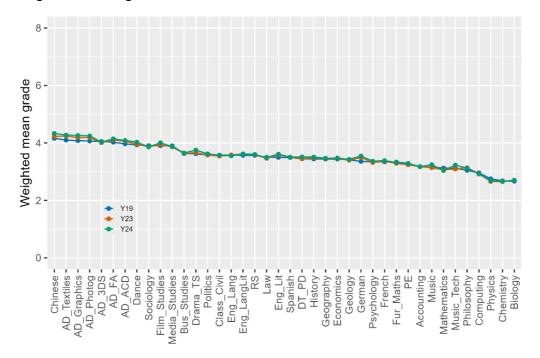
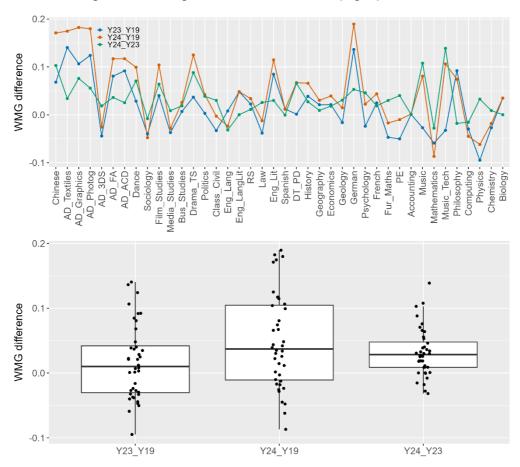


Figure 10 compares changes in subject WMG between pairs of years in more detail. In Figure 10, subjects are arranged in descending order of weighted mean grade in 2019 (see also Table A3 in Appendix A). Positive values indicate a decrease in apparent subject difficulty whereas negative values an increase. Differences in WMG between 2024 and 2019 are slightly higher than those between 2023 and 2019. Differences in WMG between 2024 and 2019 vary from - 0.087 for mathematics to 0.189 for German with a mean of 0.048 (about one-twentieth of a grade). Between 2024 and 2023, differences in subject WMG vary from -0.032 for English language to 0.139 for music technology, with a mean of 0.032 (slightly above one-thirtieth of a grade).

Figure 10 Comparison of changes in subject population weighted mean grade between 2024/2023 and 2019 and between 2024 and 2023 for the A level subjects analysed. Subjects are arranged in ascending order of statistical difficulty based on their weighted mean grade in 2019 in the top graph.



3.2.2 Rasch modelling

Relative Rasch grade difficulty distribution

Figure 11 compares subject mean difficulty and difficulties at C, A and A* between the A level subjects for 2019, 2023 and 2024 analysed using the Rasch model (in GW unit). In each of the graphs, subjects are arranged in ascending order of difficulty in 2019. Compared with both 2023 and 2019, subjects were graded comparably in 2024 at the overall subject level and at grades C and A but very slightly more leniently at A*. As in the previous years, a notable exception to this overall pattern is Chinese. It was graded slightly less leniently at grade C in 2024 than in both 2023 and 2019 but more leniently graded at grades A and A*. As stressed before, it would be inappropriate to use the outcomes of this statistical analysis in isolation from other evidence when deciding, for example, whether or not specific subjects can justifiably be said to be graded more leniently than others.

Figure 11 Comparison of subject mean difficulty (top) and difficulties at C (uppermiddle), A (lower-middle) and A* (bottom) for A level subjects for 2019, 2023 and 2024 estimated using the Rasch model (in GW). Subjects are arranged in order of difficulty in 2019.

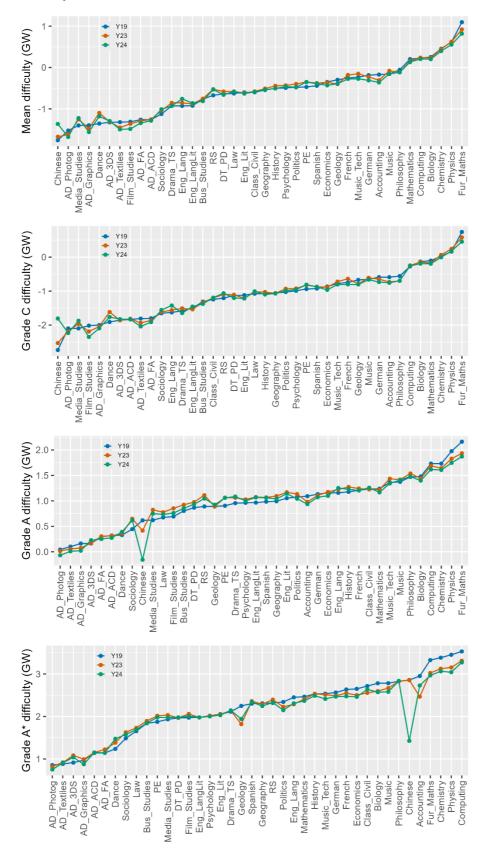


Table 5 lists the range and standard deviation of relative statistical grade difficulties of the subjects in grade width (GW). As with previous years, Chinese was excluded from the summary analyses presented in the table because it had been graded particularly leniently at A and A* from 2020 to 2022 and again in 2024.

The range and standard deviation of relative statistical grade difficulties (in GW) in 2024 are similar to those in 2023 and 2019 at the overall subject level and at all grades.

Table 5 Standard deviation and range of statistical grade difficulties (in GW) for A level subjects for 2019, 2023 and 2024 (excluding Chinese).

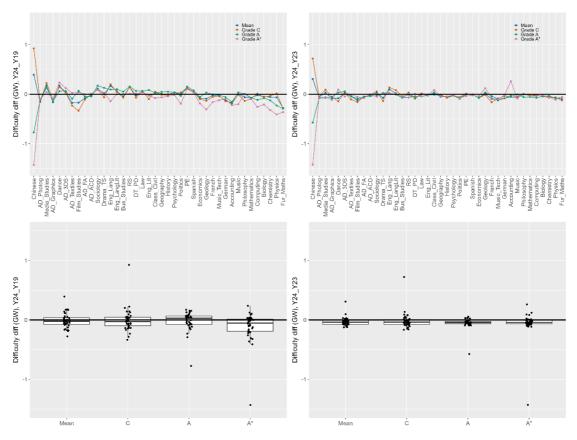
Year		SD (GW)	
Tear	Mean	С	Α	A*
2019	0.618	0.685	0.503	0.726
2023	0.602	0.677	0.479	0.630
2024	0.596	0.668	0.473	0.633
		Range	e (GW)	
	Mean	С	Α	A*
2019	2.620	2.838	2.118	2.675
2023	3 2.542 2.7		1.920	2.490
2024	2.497	2.803	1.939	2.520

Change in statistical grade difficulty

Figure 12 shows distributions of changes in statistical subject mean difficulty and difficulties at C, A and A* between 2024 and 2023 and between 2024 and 2019 (in GW unit). In Figure 12, subjects are arranged in ascending order of mean statistical difficulty in 2019. Positive values indicate an increase in apparent difficulty whereas negative values a decrease.

Subjects on average were graded similarly in both 2024 and 2019 at the overall subject level and at C and A. At A*, subjects were graded slightly more leniently in 2024 than in 2019 (by -0.11 of a grade), based on this measure. At the overall subject level, difference in difficulty between 2024 and 2019 varies from -0.28 grade for further maths to 0.39 grade for Chinese. This varies from -0.33 grade for film studies to 0.93 grade for Chinese at grade C, from -0.77 grade for Chinese to 0.17 for sociology at grade A, and from -1.43 for Chinese to 0.24 grade for dance at grade A*, respectively.

Figure 12 Changes in Rasch grade difficulties for A level subjects from 2019 to 2024 (left) and from 2023 to 2024 (right) (in GW unit). In the top graphs, subjects are arranged in ascending order of mean difficulty in 2019.



Compared with 2023, on average, subjects in 2024 were graded similarly overall and at grade C. On average, subjects were graded very slightly more leniently in 2024 than in 2023 at grades A (by -0.05 of a grade) and A* (by -0.06 of a grade). Again, Chinese had the largest increase in statistical difficulty at the overall subject level and grade C, and the largest decrease in difficulty at A and A* among all subjects.

Changes in statistical grade difficulty rank orders

As with GCSEs, subjects were rank ordered based on mean statistical difficulty and difficulties at C, A and A* separately for 2019, 2023 and 2024. Figure 13 shows distributions of changes in statistical subject difficulty rank order positions between 2024/2023 and 2019, and between 2024 and 2023 (also see Table A4 in Appendix A).

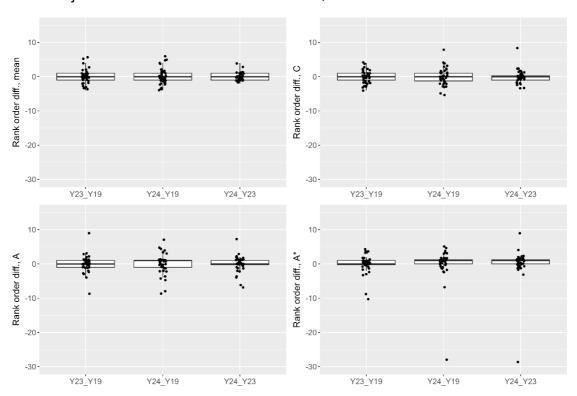
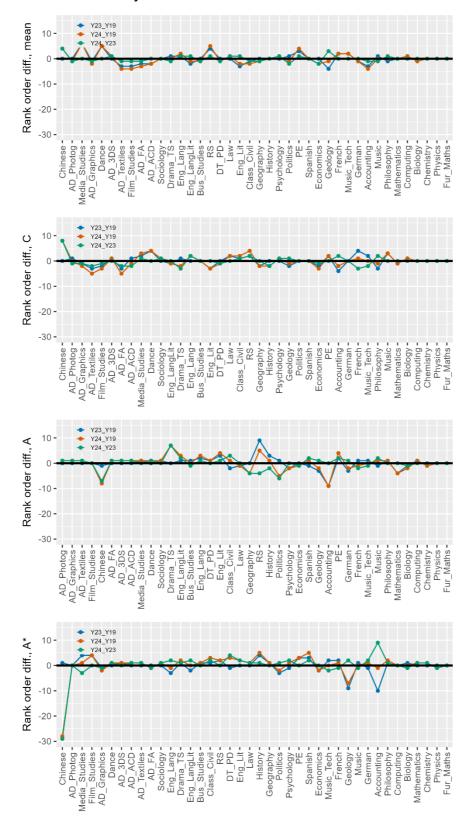


Figure 13 Distributions of changes in statistical grade difficulty rank order positions in A level subjects between 2024/2023 and 2019, and between 2024 and 2023.

Changes in statistical difficulty orders overall and at individual grades between 2024 and 2019 are generally slightly larger than changes between 2023 and 2019. At the overall subject level and at grades C and A, changes in rank order between 2024 and 2023 are smaller than changes between 2024 and 2019 and comparable at grade A*.

Figure 14 shows detailed changes in statistical grade difficulty orders between 2024/2023 and 2019, and between 2024 and 2023 for individual subjects (also see Table A4 in Appendix A). In Figure 14, subjects are arranged in ascending order of statistical grade difficulty in 2019.

Figure 14 Distributions of changes in statistical difficulty rank order positions overall and at individual grades for A level subjects between 2024/2023 and 2019 and between 2024 and 2023. Subjects are arranged in ascending order of mean statistical difficulty in 2019.



Between 2024 and 2019, at the overall subject level, only media studies (6) changed their statistical difficulty order position by more than 5. At grade C, only Chinese (8) changed their statistical difficulty order position by more than 5. At grade A, accounting (-9), Chinese (-8), and drama (7) changed their difficulty position by more than 5. At grade A*, only Chinese (-27) and geology (-7) changed their position by more than 5.

Between 2024 and 2023, no subject changed its statistical difficulty order position by more than 5 at the overall subject level. At grade C, only Chinese (8) changed its statistical difficulty order position by more than 5. At grade A, drama (7), Chinese (-7) and politics (-6) changed their statistical difficulty order positions by more than 5. At grade A*, only accounting (8) and Chinese (-28) changed their statistical difficulty order positions by more than 5.

Table 6 lists values of absolute average change and standard deviation of changes of statistical difficulty orders at the overall subject level and at grades C, A and A* between years from 2017 to 2024 (also see He & Cadwallader, 2022). At the overall subject level and at grade C, changes in statistical difficulty orders between 2024 and 2019 are comparable to changes between 2019 and 2017. At grades A and A*, changes between 2024 and 2019 are larger than changes between 2019 and 2017. Compared to changes between the pre-pandemic years, changes in statistical difficulty orders between 2024 and 2023 are generally comparable at the overall subject level and grades A and A*, but somewhat smaller at grade C. The observed changes in statistical difficulty order to some extent reflect the impact of the different approaches to assessment and grading and the grading policies implemented in these years.

Table 6 Average absolute change per subject in statistical grade difficulty rank order and standard deviation of changes in statistical difficulty orders between years for A level subjects.

Grade	Years	Change in rank	order
Orace	i cai s	Average change	SD
	18-17	0.900	1.304
	19-18	1.300	2.049
Mean	19-17	1.500	2.191
	24-19	1.641	2.309
	24-23	0.821	1.177
	18-17	1.300	2.121
	19-18	1.700	2.559
С	19-17	1.650	2.145
	24-19	1.795	2.470
	24-23	0.974	1.754
	18-17	1.000	1.449
	19-18	1.150	1.549
Α	19-17	1.350	1.732
	24-19	2.154	3.047
	24-23	1.436	2.320
	18-17	1.750	2.429
	19-18	1.750	2.924
A *	19-17	2.050	3.500
	24-19	2.256	4.825
	24-23	1.949	4.857

4. Concluding remarks

In this report, the comparability of grading standards between subjects in summer 2024 was investigated using statistical measures of grade difficulty. The approach involves empirical analysis of the relationships between subject grade outcomes and prior attainment, and Rasch modelling of the relationships between grade outcomes in different subjects. These difficulty statistics were compared with the difficulty measures estimated for 2019 and 2023, allowing comparison of the observed relationships under the different grading and assessment arrangements. As with previous reports, the limitations of the statistical methods used in this study, which are discussed in the 'Methods of Analysis' section, must be borne in mind when considering the findings from this study. It would be inappropriate to draw strong conclusions about whether specific subjects are harshly or leniently graded, without considering other evidence (see, for example, Ofqual, 2015 for further discussion).

Based on relationships between subject grade outcomes and prior attainment for prior attainment-matched candidates, GCSE subjects in 2024 were graded on average marginally less leniently than in 2023 (about one-twenty-fifth of a grade) and very similarly to 2019. There was, however, a degree of variation between subjects. For A levels, subjects in 2024 on average were graded marginally more leniently than in 2023 (about one-thirtieth of a grade) and 2019 (about one-twentieth of a grade). Again, there was variation between subjects. The comparability in subject grading severity or leniency between 2024 and 2019 or 2023 mostly reflects the impact of the return of grading standards in 2024 to those from before the COVID-19 pandemic (2019).

Based on analysis using the Rasch model for all candidates taking the subjects analysed, GCSE subjects in 2024 were graded slightly less leniently than in 2019 at the overall subject level (less than a twentieth of a grade) and at grades 7 and 9 (about a twentieth of a grade) and similarly at grade 4. Subjects were graded about an eighth of a grade slightly less leniently in 2024 than 2023 at the overall subject level and at individual grades. A level subjects in 2024 were graded comparably to 2023 and 2019 at the overall subject level and at grades C and A. There was marginal leniency, based on these statistical measures, in 2024 compared to 2019 (about a ninth of a grade) and 2023 (about a seventeenth of a grade).

For GCSE subjects, the standard deviation of relative statistical grade difficulties (in GW unit) between the subjects in 2024 is similar to or slightly smaller than those in 2023 and 2019 at the overall subject level and at individual grades. At the overall subject level and at individual grades, the range of statistical grade difficulties in 2024 is slightly smaller than or similar to those in 2019 and 2023. For A level subjects, the range and standard deviation of relative statistical grade difficulties in 2024 are similar to those in 2023 and 2019 at the overall subject level and at individual grades.

For GCSE subjects, on average, changes in statistical grade difficulty orders between 2024 and 2019 are slightly larger than changes between years of normal exams before the COVID-19 pandemic at the overall subject level and generally similar at individual grades. Changes between 2024 and 2023 are slightly smaller than changes between the pre-pandemic years of normal exams. For A level subjects, on average, changes in statistical difficulty orders between 2024 and 2019 are comparable to changes between 2019 and 2017 at the overall subject level and at grade C. At grades A and A*, changes between 2024 and 2019 are larger than changes between 2019 and 2017. Changes in statistical difficulty orders between 2024 and 2023 are generally comparable to changes

between years of normal exams prior to the pandemic at grades A and A*, but somewhat smaller at grade C and the overall subject level.

In combination, the analysis of the distributions of statistical difficulties and changes to rank order positions suggest that the grading approach in 2024 has resulted in relationships between subjects that are very similar to those from 2019. Statistical intersubject comparability in GCSEs and A levels over the 3 years of investigation has likely been affected by the different assessment and grading approaches and the trends are consistent with the grading policies implemented over these years.

References

- Brylka, A., & He. Q. (2024). <u>Inter-subject comparability in GCSEs and A levels in summer 2023.</u>
- Coe, R. (2008). Comparability of GCSE examinations in different subjects: An application of the Rasch model. *Oxford Review of Education*, *34*, 609–636.
- Department for Education (2021). <u>Adaptations in 2022 summer exams to ensure</u> fairness for students.
- Department for Education (2023a). <u>Additional support materials for GCSE exams in 2024.</u>
- Department for Education (2023b). Exams in 2023 everything you need to know.
- He, Q. and Black, B. (2020). <u>Impact of calculated grades</u>, <u>centre assessment grades</u> and final grades on inter-subject comparability in GCSEs and A levels in 2020. <u>Ofqual: Coventry, UK</u>.
- He, Q. and Cadwallader, S. (2022). An investigation of inter-subject comparability in GCSEs and A levels in summer 2021. Ofqual: Coventry, UK
- He, Q. and Cadwallader, S. (2023). <u>Inter-subject comparability in GCSEs and A levels in summer 2022. Ofqual: Coventry, UK</u>
- Ofqual (2015). <u>Comparability of Different GCSE and A Level Subjects in England: An Introduction. Ofqual: Coventry, UK.</u>
- Ofqual (2019). <u>Grading standards in GCSE French, German and Spanish. Ofqual:</u>
 <u>Coventry, UK.</u>
- Ofqual (2020). <u>Summer 2020 results analysis GCSE, AS and A level. Ofqual:</u> Coventry, UK.
- Ofqual (2021a). <u>Summer 2021 results analysis and quality assurance</u>. <u>Ofqual:</u> <u>Coventry</u>, UK.
- Ofqual (2021b). <u>Ofqual's approach to grading exams and assessments in summer 2022</u> and autumn 2021. Ofqual: Coventry, UK.
- Ofqual (2022). <u>Grading exams and assessments in summer 2023 and autumn 2022</u>. <u>Ofqual: Coventry, UK.</u>
- Ofqual (2022a). <u>Student guide to exams and formal assessments in 2021 to 2022.</u> <u>Ofqual: Coventry, UK.</u>

- Ofqual (2022b). <u>Guide to GCSE results for England, summer 2022. Ofqual: Coventry, UK.</u>
- Ofqual (2022c). <u>Guide to AS and A level results for England, summer 2022. Ofqual:</u> <u>Coventry, UK</u>.
- Ofqual (2023). Exam results 2023: 10 things to know about GCSE, AS and A level grades. Ofqual: Coventry, UK.
- Ofqual (2024a). Ofqual guide for schools and colleges 2024.
- Ofqual (2024b). Grading continues as normal this summer in England.
- Ofqual (2024c). GCSE computer science regulatory summary.

Appendix A: Additional tables

Table A1 Difference in weighted mean grade between 2023 and 2024 and 2019, and between 2024 and 2023 for GCSE subjects (see Table 1 for full titles of the subjects).

Subject	2023-2019	2024-2019	2024-2023
Polish	-0.079	-0.094	-0.015
Italian	0.354	0.502	0.148
Urdu	-0.013	-0.108	-0.095
Chinese	0.157	0.163	0.006
Arabic	-0.064	-0.245	-0.181
AD_Photog	0.006	-0.022	-0.028
AD_FA	0.099	0.009	-0.090
AD_Textiles	0.017	-0.039	-0.056
AD_ACD	0.011	0.004	-0.008
Physics	0.046	0.018	-0.028
Dance	0.015	0.005	-0.010
Biology	0.044	-0.033	-0.078
Chemistry	0.016	0.014	-0.002
RS	0.015	-0.051	-0.066
Latin	0.002	-0.320	-0.322
Drama	0.036	0.020	-0.016
Food_P&N	-0.008	-0.027	-0.018
Eng_Lit	-0.020	-0.100	-0.081
AD_Graphics	0.273	0.179	-0.094
Media_Studies	0.038	0.009	-0.029
Film_Studies	0.027	0.021	-0.006
Music	-0.005	-0.056	-0.051
Eng_Lang	0.032	-0.034	-0.065
PE	-0.014	-0.065	-0.051
Citi_Studies	0.034	-0.042	-0.076
Mathematics	0.049	-0.029	-0.078
Sociology	0.073	0.044	-0.029
D&T	0.020	-0.021	-0.041
Geography	-0.002	-0.019	-0.017
Class_Civil	-0.088	-0.215	-0.128
History	0.033	0.011	-0.022
AD_3DStudies	0.080	-0.018	-0.097
Business	0.048	0.034	-0.014
Spanish	0.021	-0.003	-0.023
Economics	-0.034	-0.087	-0.052
Statistics	0.004	-0.058	-0.062
French	0.068	0.079	0.010
German	0.084	0.171	0.087
Cbd_Science	0.013	-0.024	-0.037
Psychology	0.014	-0.053	-0.067
Computing	0.059	0.200	0.141
Average	0.036	-0.007	-0.042

Table A2 Differences in difficulty order overall and at grades 4, 7 and 9 between 2023 and 2024 and 2019, and between 2024 and 2023 for GCSE subjects.

Outlet e et		Mean			Grade 4	ı		Grade 7	,		Grade 9	
Subject	23-19	24-19	24-23	23-19	24-19	24-23	23-19	24-19	24-23	23-19	24-19	24-23
AD 3DStudies	0	6	6	-1	2	3	0	1	1	0	1	1
AD ACD	1	0	-1	1	-1	-2	0	-1	-1	-3	-1	2
AD_FA	-2	-1	1	-2	-1	1	-3	-1	2	-5	-1	4
AD_Graphics	-5	-4	1	-6	-8	-2	-2	1	3	-9	-8	1
AD_Photog	0	0	0	0	0	0	1	1	0	0	0	0
AD_Textiles	-1	0	1	0	0	0	1	3	2	-1	5	6
Arabic	2	2	0	1	3	2	0	1	1	-1	0	1
Biology	-2	-1	1	-3	-4	-1	2	3	1	3	3	0
Business	0	-1	-1	0	0	0	-1	-4	-3	0	-2	-2
Cbd_Science	0	2	2	-1	0	1	-1	-2	-1	0	-1	-1
Chemistry	1	-1	-2	-1	-2	-1	-1	-2	-1	3	2	-1
Chinese	-8	-9	-1	-2	-2	0	-2	-2	0	0	-1	-1
Citi_Studies	7	7	0	0	2	2	3	6	3	10	11	1
Class_Civil	-1	1	2	-1	0	1	0	1	1	2	3	1
Computing	2	1	-1	2	0	-2	1	-2	-3	4	-10	-14
D&T	1	2	1	-1	-1	0	-1	-1	0	1	7	6
Dance	3	-2	-5	-1	-1	0	1	-4	-5	4	2	-2
Drama	2	2	0	1	1	0	2	1	-1	0	1	1
Economics	-1	-2	-1	-1	0	1	0	1	1	1	1	0
Eng_Lang	-2	-3	-1	0	0	0	0	0	0	2	4	2
Eng_Lit	1	3	2	2	2	0	-1	3	4	2	5	3
Film_Studies	4	4	0	5	5	0	1	1	0	0	0	0
Food_P&N	0	-2	-2	1	0	-1	0	0	0	3	-1	-4
French	0	1	1	1	1	0	0	0	0	-11	-12	-1
Geography	2	3	1	2	2	0	1	0	-1	1	3	2
German	-3	-4	-1	-1	-2	-1	0	-2	-2	-5	-6	-1
History	-2	-2	0	0	0	0	-2	-4	-2	-3	-3	0
Italian	1	0	-1	1	2	1	0	0	0	1	0	-1
Latin	3	3	0	0	0	0	2	2	0	-6	-4	2
Mathematics	-3	-5	-2	0	-1	-1	-2	-3	-1	-5	-5	0
Media_Studies	5	3	-2	3	1	-2	3	4	1	5	0	-5
Music	0	0	0	2	2	0	-1	0	1	-1	-3	-2

PE	2	3	1	6	6	0	2	2	0	-1	3	4
Physics	-2	-2	0	-2	-2	0	2	2	0	0	1	1
Polish	0	0	0	0	0	0	0	0	0	0	0	0
Psychology	0	0	0	0	0	0	0	1	1	0	3	3
RS	-2	0	2	-4	-1	3	0	0	0	3	0	-3
Sociology	0	-2	-2	-2	-2	0	-4	-6	-2	0	-3	-3
Spanish	0	0	0	0	1	1	0	2	2	6	5	-1
Statistics	0	0	0	2	-1	-3	-1	-1	0	0	0	0
Urdu	-3	-2	-2	-1	-1	0	0	-1	-1	0	1	1
SD of change	2.59	2.90	1.67	2.11	2.24	1.23	1.50	2.33	1.68	3.76	4.25	3.20
Min of change	-8	-9	-5	-6	-8	-3	-4	-6	-5	-11	-12	-14
Max of change	7	7	6	6	6	3	3	6	4	10	11	6
Absolute average change	1.80	2.10	1.12	1.46	1.46	0.78	1.07	1.76	1.17	2.49	2.98	2.05

Table A3 Difference in weighted mean grade between 2023 and 2024 and 2019, and between 2024 and 2023 for A level subjects (see Table 2 for full titles of the subjects).

Subject	2023-2019	2024-2019	2024-2023	
Chinese	0.068	0.171	0.103	
AD_Textiles	0.140	0.175	0.034	
AD_Graphics	0.106	0.182	0.076	
AD_Photog	0.124	0.180	0.056	
AD_3DS	-0.044	-0.026	0.019	
AD_FA	0.081	0.117	0.036	
AD_ACD	0.092	0.117	0.025	
Dance	0.029	0.099	0.071	
Sociology	-0.040	-0.048	-0.008	
Film_Studies	0.040	0.104	0.064	
Media_Studies	-0.037	-0.028	0.009	
Bus_Studies	0.007	0.026	0.019	
Drama_TS	0.037	0.125	0.088	
Politics	0.003	0.042	0.039	
Class_Civil	-0.033	-0.003	0.030	
Eng_Lang	0.008	-0.024	-0.032	
Eng_LangLit	0.048	0.048	0.000	
RS	0.023	0.034	0.011	
Law	-0.038	-0.012	0.026	
Eng_Lit	0.085	0.115	0.030	
Spanish	0.012	0.012	0.000	
DT_PD	0.001	0.067	0.066	
History	0.039	0.066	0.027	
Geography	0.021	0.030	0.009	
Economics	0.021	0.039	0.018	
Geology	-0.016	0.015	0.031	
German	0.136	0.189	0.053	
Psychology	-0.024	0.022	0.046	
French	0.025	0.044	0.019	
Fur_Maths	-0.047	-0.017	0.030	
PE	-0.050	-0.010	0.040	
Accounting	0.001	0.002	0.001	
Music	-0.027	0.081	0.108	
Mathematics	-0.059	-0.087	-0.028	
Music_Tech	-0.032	0.106	0.139	
Philosophy	0.092	0.074	-0.018	
Computing	-0.030	-0.045	-0.015	
Physics	-0.095	-0.062	0.033	
Chemistry	-0.027	-0.018	0.009	
Biology	0.035	0.035	0.000	
Average	0.017	0.048	0.032	

Table A4 Differences in difficulty order overall and at grades C, A and A* between 2023 and 2024 and 2019, and between 2024 and 2023 for A level subjects

• • • •		Mean			С			Α			A *	
Subject	23-19	24-19	24-23	23-19	24-19	24-23	23-19	24-19	24-23	23-19	24-19	24-23
Accounting	-2	-3	-1	-3	-2	1	-9	-9	0	-9	-1	8
AD_3DS	0	1	1	1	1	0	0	1	1	1	1	0
AD_ACD	-2	-2	0	1	-1	-2	0	1	1	0	1	1
AD_FA	-2	-3	-1	-3	-5	-2	0	1	1	0	-1	-1
AD_Graphics	-1	-2	-1	-1	-2	-1	0	1	1	-1	-2	-1
AD_Photog	0	-1	-1	1	0	-1	0	1	1	0	0	0
AD_Textiles	-3	-4	-1	-3	-5	-2	0	1	1	0	1	1
Biology	-1	-1	0	1	1	0	-1	-2	-1	1	0	-1
Bus_Studies	0	-1	-1	0	0	0	1	0	-1	1	1	0
Chemistry	0	0	0	0	0	0	-1	-1	0	0	1	1
Chinese	0	4	4	0	8	8	-1	-8	-7	1	-27	-28
Class_Civil	-1	-2	-1	1	2	1	-2	1	3	1	3	2
Computing	1	1	0	0	0	0	1	1	0	0	0	0
Dance	5	5	0	4	4	0	0	1	1	0	1	1
Drama_TS	1	0	-1	1	-2	-3	0	7	7	1	2	1
DT_PD	0	-1	-1	0	-1	-1	1	1	0	-1	3	4
Economics	0	-2	-2	-2	-3	-1	0	-1	-1	-1	-2	-1
Eng_Lang	1	2	1	0	2	2	2	3	1	-3	-1	2
Eng_LangLit	-2	-1	1	-1	-1	0	1	3	2	-2	0	2
Eng_Lit	-3	-2	1	-3	-3	0	3	4	1	0	2	2
Film_Studies	-3	-4	-1	-2	-3	-1	0	0	0	4	4	0
French	2	2	0	4	1	-3	1	-1	-2	2	1	-1
Fur_Maths	0	0	0	0	0	0	0	0	0	0	0	0
Geography	0	-1	-1	-2	-2	0	0	-4	-4	1	1	0
Geology	-4	-1	3	-1	-1	0	-3	-2	-1	-9	-7	2
German	0	0	0	0	0	0	-3	-2	1	0	1	1
History	0	0	0	0	-2	-2	3	1	-2	3	4	1
Law	0	1	1	2	2	0	-1	-1	0	0	1	1
Mathematics	0	0	0	-1	-1	0	-4	-4	0	0	1	1
Media_Studies	6	6	0	2	3	1	1	1	0	4	1	-3
Music	1	0	-1	3	3	0	0	1	1	1	0	-1
PE	3	4	1	2	2	0	2	4	2	3	3	0

Philosophy	-1	0	1	-3	-1	2	1	1	0	1	2	1
Physics	0	0	0	0	0	0	0	0	0	0	-1	-1
Politics	1	-1	-2	0	0	0	1	-5	-6	-3	-2	1
Psychology	0	1	1	0	1	1	-2	-2	0	-1	1	2
RS	4	5	1	2	4	2	9	5	-4	2	2	0
Sociology	0	0	0	0	1	1	1	1	0	0	1	1
Spanish	0	0	0	0	0	0	-1	1	2	3	5	2
SD of change	2.01	2.31	1.18	1.78	2.47	1.75	2.50	3.05	2.32	2.60	4.83	4.86
Min of change	-4	-4	-2	-3	-5	-3	-9	-9	-7	-9	-27	-28
Max of change	6	6	4	4	8	8	9	7	7	4	5	8
Absolute average change	1.28	1.64	0.82	1.28	1.80	0.97	1.44	2.15	1.44	1.54	2.26	1.95



© Crown Copyright 2025

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated.

<u>View the Open Government Licence at The National Archives website</u> or write to: Information Policy Team, The National Archives, Kew, London TW9 4DU

Published by:



2nd floor, 1 Friargate Station Square Coventry CV1 2GN

0300 303 3344

www.gov.uk/ofqual