

Coursework Moderation of Internal Components and Mark Adjustments

(An Explanation for Centres)

This page provides some insights into the moderation process for the centre-assessed components, explaining how sampling works, and how the final marks for each learner in the cohort are determined.

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Introduction

As an awarding organisation, Pearson are required to moderate the marks submitted by centres for any internally assessed components. This is covered in section H2 of Ofqual's [General Conditions of Recognition](#).

In most centre-assessed components, a sample of work from each centre is provided to a moderator, by way of digital submission or a centre visit. The moderator's primary role is to report on a centre's interpretation of the published assessment criteria and to compare their marks (referred to as moderator marks) with the original centre marks. Depending on the variance between the centre marks and the moderator marks, centres can review on Results Day whether their marking in a particular component was accepted without change or whether adjustments were made. This is a vital part of the awarding process, ensuring all learners are treated fairly by being judged against the same standard, with any adjustments made to the centre marks being necessary to bring centres' judgements in line with the national standard.

Sampling

Within the centre cohort, it is not always possible to submit work covering all learners for moderation. Instead, centres are asked to provide a sample of work for some learners. The sample is employed as representative of the marking standard within the centre and to determine whether a teacher-assessor(s) is marking learners at the required standard, against the published assessment criteria. It is important to note that no individual or sampled learner marks are changed based on the moderated sampling outcome, instead the sample is used to indicate whether (if any) adjustment is necessary for the centre as a whole and to determine the size and scale of the adjustment that needs to be applied.

The size of the sample required is determined by the size of the cohort entered for the component at the centre.

Cohort Size	Sample Size Required	Sub-Sample	Full Sample	Extended Sample
Up to 5	All	All	All	All
6 - 10	All	5	All	All
11 - 15	All	6	10	All
16 - 100	15	6	10	15
101 - 200	20	6	15	20
More than 200	25	6	20	25

The sample is selected randomly but should generally consist of work from learners with a range of marks, including the highest and lowest scoring work in the cohort. For further information on the NEA submission, visit the following webpage [Edexcel Online – Submitting Marks](#).

Once the sample of work is submitted, the moderator will first look at part of the sample, known as the **Sub-Sample**. If the moderator agrees with the centre's marks, within the specified tolerance (described below) for all the work in the sub-sample, then no further work is to be moderated. This means that no change is made to the centre's marks, resulting in centre marks being used as the final marks for each learner in a particular component, for results issued.

However, if the moderator finds that any of the marks in the Sub-Sample are outside of the specified tolerance, then they would be required to moderate the **Full Sample** as shown in the table above. After moderating the Full Sample, adjustments to the centre's marks may be made using the regression method outlined further below in this document.

In most cases, the Full Sample of work will be sufficient to determine the size and scale of the adjustment that needs to be applied. However, in exceptional circumstances where an adjustment cannot be calculated fairly from the sample, due to an extreme range in outcomes where centre marks are found to be inconsistent throughout the samples, the moderator will moderate the additional work provided in the **Extended Sample** as shown in the table above. This may be necessary to apply a fair adjustment to the marks in the whole cohort.

Tolerance

When a centres' marking is moderated, it is not always possible that each of the sampled work will be in precise agreement with the moderator's marks – *it is not reasonable to expect two individuals assessing the same piece of work to make exactly the same judgement, in all marking decisions*. Therefore, some leeway is necessary to account for these differences in any centre-assessed component; this is called tolerance.

Tolerance is a fixed number of marks, specific to each component, to determine the differences between a centre's marking and a moderator's marking that can be taken as a legitimate variation in judgement and to confirm whether the centre's marks can be accepted. If the differences are outside the specified tolerance, an adjustment to the centre marking will be made to bring the centre's standard of marking in line with the national standard.

Example/ Scenario

Below is a simple illustration displaying how the sample and its tolerance works (described above) for a centre-assessed component (the exampled tolerance is **-/+ 2**):

Sample		Sub-sample	
Centre has 20 learners entered for the component. 15 learner's work have been submitted for the sample.		Moderator to sub-sample 6 learners work at first for moderation.	
Learner no.	Centre mark	Learner no.	Centre mark
0001	7	0001	7
0002	13	0005	12
0003	10	0007 (highest)	20
0004	11	0009	15
0005	12	0010 (lowest)	6
0006	12	0014	18
0007	20		
0008	20		
0009	15		
0010	6		
0011	8		
0012	17		
0013	12		
0014	18		
0015	10		

In this example, the Sub-Sample size is 6, the Full Sample is 10 and the Extended Sample is 15.

Below is a version where the outcome of the sub-sampling is within the specified tolerance, therefore no further moderation is needed:

Learner no.	Centre Mark	Moderated Mark	Difference
0001	7	5	-2
0005	12	10	-2
0007	20	18	-2
0009	15	15	0
0010	6	5	-1
0014	18	18	0

Below is a version where the outcome of the sub-sampling is **outside** the specified tolerance, therefore further moderation is needed i.e. the **Full Sample** will be moderated:

Learner no.	Centre Mark	Moderated Mark	Difference
0001	7	5	-2
0005	12	7	-5
0007	20	16	-4
0009	15	15	0
0010	6	3	-3
0014	18	18	0

The Full Sample moderated results (below) remained outside of the +/-2 tolerance limit and therefore a regression is required.

Learner no.	Centre Mark	Moderated Mark	Difference
0001	7	5	-2
0002	13	12	-1
0003	10	6	-4
0004	11	11	0
0005	12	12	0
0006	12	7	-5
0007	20	16	-4
0008	20	17	-3
0009	15	14	-1
0010	6	15	0

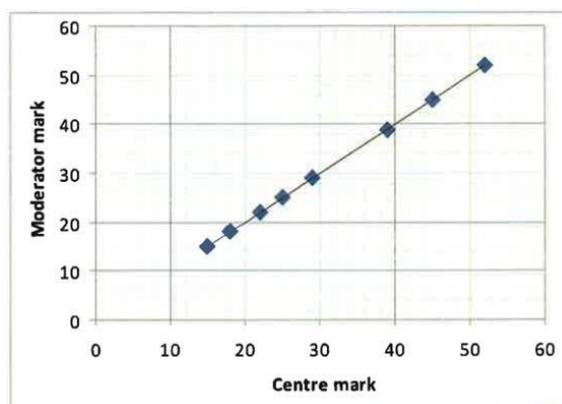
The Regression Process – Calculating Adjustments

When an adjustment is necessary, a mathematical process is employed to calculate adjusted marks for all learners within a centre; this is called regression. Regression compares two sets of data (centre marks and moderated marks) in order to find the relationship between them and to create the most appropriate, logical outcome in terms of final marks imposed for all learners in the cohort.

The best way to understand how the regression process works is to demonstrate it on a graph showing centre marks and moderated marks for learners in a sample.

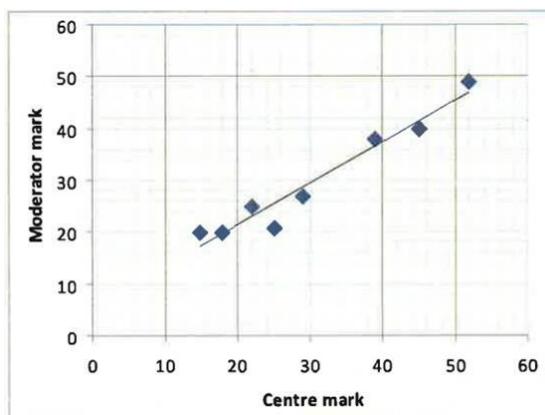
Graph 1

Graph 1 shows the most ideal scenario for any centre-assessed components; in which the moderator has agreed precisely on every centre mark for every sampled learner.



Graph 2

In most cases, moderation produces data that is closely aligned with Graph 2; where points do not lie precisely in a straight line, but there is a trend and a “line of best fit” can be drawn. This line is known as the regression line.

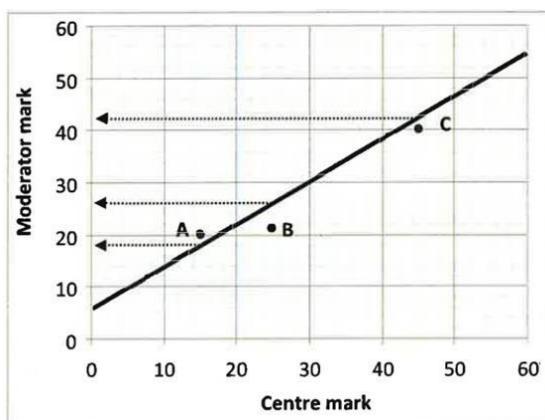


Using the regression line as a guide, Pearson computer software then calculates an adjusted mark for each learner in the cohort as the final mark in a particular component to bring them in line with the national standard.

For each learner, the regression line gives a mark that best fits with the pattern established by both the centre marks and the sampled learners' moderator marks. This is a fair adjustment which will be computed automatically and checked by a member of the assessment team to ensure no errors have been made.

Graph 3

Graph 3 shows an example of the transformation of centre marks to adjusted marks using the regression line.



Learner	Centre mark	Moderated mark	Adjusted mark (final mark)
A	15	20	18
B	25	21	26
C	45	40	42

Candidate A, for example, was given a mark of 15 by the centre, and would receive an adjusted mark of 18. Candidate B was given 25 marks by the centre and the adjusted mark would be 26. Candidate C was given 45 marks by the centre and the adjusted mark would be 42. These marks are adjusted, using the regression line, to 18, 26 and 42 respectively, as shown by the dotted lines.

As in the example above, moderators may give marks that are higher than the centre's marks for some learners, and lower for others. The adjusted marks can fall within that range (i.e. between the centre's mark and the moderator's mark), as well as above it and below it.

When looking at individual learners, some appear to 'benefit' from the adjustment (see Learner B in the example who was given a mark of 25 by the centre, 21 by the moderator, and 26 in the adjustment). Conversely, some learners seem to 'lose out' and receive a mark lower than both the centre and moderator gave. This is due to the line of best fit being applied as outlined in Graph 2.

The intention of the regression process is to use the moderator's marks to calculate an adjusted mark for each learner at a centre (not just the sampled ones), and to ensure that a fair adjustment is made for the cohort as a whole.

All adjusted marks are calculated based on the marks given by the centre, so the centre's **rank order of learners is maintained**. This means the learner(s) given the highest mark by the centre and the learner(s) given the lowest mark by the centre will continue to have the highest and lowest marks after the adjustment has been made. It is therefore vital that centres ensure their rank order is correct.

Sometimes the recommended adjusted marks for the whole cohort that was calculated automatically are not accepted, as there is significant disagreement between the moderator and the centre's rank ordering of the candidates. In these cases, the **Extended Sample** may need to be moderated before another calculation is made for the final marks.

Results

It is important to remember that this is a moderation process and not a marking process as only a sample are reviewed by a moderator. Therefore, when you receive your results we do not provide the moderators marks for the sample, we only provide the final marks for all candidates. If your cohort has been regressed then these final marks will be the outcome of the regression calculation. A written explanation relating to the findings of the moderator will be found in the moderators report.

Summary

There are four possible outcomes of the moderation process:

1. There is no difference between the centre's marks and the moderator's marks for the sampled learners, so the centre's marks are accepted as final marks for all learners in the cohort.
2. There are only small differences between the centre's marks and the moderator's marks for the sampled learners, also known as *within tolerance*, so the centre's marks are accepted as final marks for all learners in the cohort.
3. There are greater differences between the centre's marks and the moderator's marks for the sampled learners, but the moderator generally agrees with the centre's rank ordering of the learners, so the regression process described above is used to adjust the marks of all learners in the cohort.
4. There is significant disagreement between the moderator and the centre's rank ordering of the learners so further work is moderated before learners' final marks are calculated. In extreme cases this may lead to the moderator's marks being imposed for all learners in the cohort.

Remember: adjustments are only made when necessary to maintain equity between centres and candidates.

For more information and guidance, visit the dedicated webpage [Coursework, controlled assessment and non-exam assessment \(NEA\)](#).