

## 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.

### 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 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	Sub-sample
Up to 5	All	All
6-10	All	5
11-99	10	6
100-199	15	6
More than 200	20	6

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 [NEA mark submission](#). 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 to be outside of the specified tolerance, then they would be required to moderate the rest of the work in the full sample. After moderating the full sample, adjustments to the centre's marks may be made using the regression method outlined in this document.

In most cases the initial 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 request additional work to be submitted (often the work of all learners) from the centre. This may be necessary to apply a fair adjustment to the marks in the whole cohort. Centres will usually be notified by Pearson if all work is required to be submitted for all learners.

## Tolerance

When centres' marking is moderated, it is not always possible that each of the sampled work will be in precise agreement – 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 marking and a moderator marking that can be taken as a legitimate variation in judgement and to confirm 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 exemplified tolerance is  $\pm 2$ ):

<b>Sample</b> Centre has 20 learners entered for the component. 10 learners work has been submitted for the sample		<b>Sub-sample</b> Moderator to sub-sample 6 learners work at first for moderation.	
<b>Learner no.</b>	<b>Centre mark</b>	<b>Learner no.</b>	<b>Centre mark</b>
0001	7	0001	7
0002	20	0003	17
0003	17	0005 (highest)	20
0004	18	0007	10
0005	20	0008	6
0006	19	0010 (lowest)	3
0007	10		
0008	6		
0009	12		
0010	3		

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

<b>Learner no.</b>	<b>Centre Mark</b>	<b>Moderated Mark</b>	<b>Difference</b>
0001	7	5	-2
0003	17	15	-2
0005	20	18	-2
0007	10	10	0
0008	6	5	-1
0010	3	3	0

Below is a version where the outcome of the sub-sampling is outside the specified tolerance, therefore further moderation needed i.e. moderate the remaining four pieces of work in the sampled:

Learner no.	Centre Mark	Moderated Mark	Difference
0001	7	5	-2
0003	17	12	-5
0005	20	16	-4
0007	10	10	0
0008	6	3	-3
0010	3	3	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	20	16	-4
0003	17	12	-5
0004	18	17	-1
0005	20	16	-4
0006	19	17	-2
0007	10	10	0
0008	6	3	-3
0009	12	12	0
0010	3	3	0

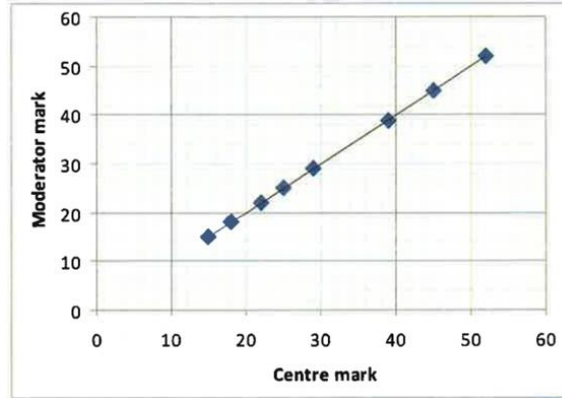
### The regression process - calculating adjustments

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.

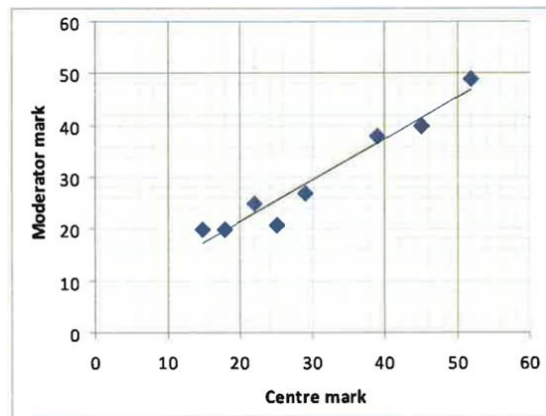
### Graph 1

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

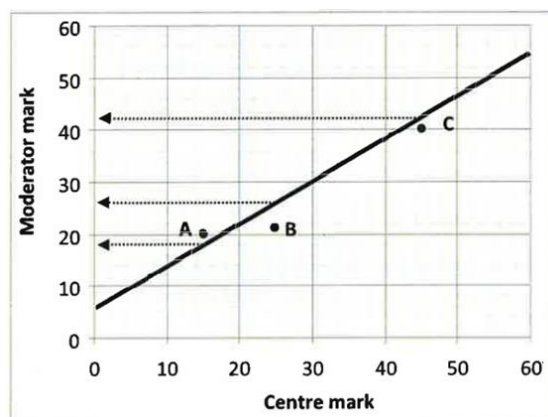
In most cases, moderation produces data that is closely aligned with Graph 2; where points do not lie precisely in a straight line, but there is a trend and a “line of best fit” can be drawn. This line is known as the regression line.



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 subject 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 and further work may be requested for moderation 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 \(NEA\)](#).