

#mathscpdchat 28 April 2020

Estimating exam grades: what departmental strategies are you considering?

Hosted by [Kathryn Darwin](#)

This is a brief summary of the discussion – to see all the tweets, follow the hashtag #mathscpdchat in Twitter

#mathscpdchat
TONIGHT - Tuesday, 28 April, 7-8 pm

Estimating exam grades: what departmental strategies are you considering?

Hosted by Kathryn Darwin @Arithmaticks
ncetm.org.uk/mathscpdchat

Some of the areas where discussion focussed were:

teachers' decisions and progress already made towards the goal of estimating students' GCSE and A level grades as fairly as possible:

- some teachers are satisfied that they are making good progress ... **procedures that they have already carried out include** ... looking at percentages of marks obtained by students in this years' mock exams, working-out the trend in marks obtained by

exam candidates over the past three years and using that to 'adjust' this year's mock exam results ... holding online departmental meetings to consider the 'ranking' of students in attainment order, and to compare the results of 'parallel' (of approximately the same attainment level) sets of students ... considering other assessment 'data' gathered during the school year;

- that many schools had run two sets of mock exams (typically in November and February) thus enabling teachers to estimate the grades that students would have achieved in exams this term on the **hypothesis that progress made between the second mock exam and the 'real' exam would have been similar to progress made between the two mock exams;**
- **some teachers are concerned that** some students might have progressed at a greater rate after both mock exams than they did between them, and that therefore such **students will not be awarded the grade that they might have achieved by sitting a real exam** ... other teachers are confident that grades predicted using students' results in mock exams will be very close to the grades that they would have achieved in real exams ... in past years 'we've always been within a few percent accuracy when comparing predict to real';
- concern that, owing to their **sympathy for students** having to cope in the present circumstances, teachers may be **'over-generous' in their grade estimations;**
- that some teachers have estimated grades using data recorded against student-identifiers other than their names ... other teachers believe that students' personalities (considering, for example, whether a particular student is likely to have worked very hard during the last few weeks before the exam), **classwork, attitude and mathematical-behaviour history should be reflected in the estimated grade** ... that some teachers are 'taking into consideration' the personalities and observed mathematical-behaviour of **only those students whose data-estimated percentages are close to grade boundaries;**

issues emerging during the process of 'ranking' (arranging students in attainment order):

- that **'ranking' is proving to be much harder than estimating grades;**
- the challenge of **obtaining fair A level grades for students in a Year 13 cohort that is significantly better than those of previous years** ... concern about whether exam boards will accept/consider the Centre's (the school's) evidence (consisting of mock exam results and data from continual assessment) supporting teachers' judgements ... that 'students deserve what I know they were on track to achieve' ... that exam boards are expecting to receive only grade estimations and rankings ... that teachers are preparing evidence in case their estimated grades are challenged;

- that in some schools each individual teacher is grading and ranking the students in the group that they teach ... two teachers then rank the whole cohort ... the whole-cohort ranking is then discussed in a **whole-department online meeting when final ranking decisions are made**;
- that arranging students in order of estimated exam-attainment (ranking them) is hardest for **GCSE groups consisting of both Foundation and Higher tier candidates** (referred to as 'hybrid' groups) ... for example, do you rank a low grade 5 obtained on the Higher tier papers higher or lower than a high grade 5 achieved on Foundation tier papers? ... that a grade 5 obtained in each tier ought to be equivalent;
- that in normal years some students who sit Foundation tier GCSE mock exams move to doing Higher tier papers in the real exam, and vice-versa ... teachers have concluded that such '**last minute' Higher ↔ Foundation movement is not possible this year**;
- that it is particularly hard to rank and estimate the grades of students whose previous attainment puts them on the **grade 4/5 border** ... that 'with 300 kids there are obviously going to be winners and losers' ... that in previous years some students have 'jumped up' three grades between the February mock GCSE exams and the final exams ... that 'there will be students I have overestimated and students I have underestimated' ... that in these circumstances teachers are trying 'to be as fair as we can be';
- that **fitting 'resit' students into a rank order with Year 11 students** is proving to be 'tricky' ... teachers are relying on 'gut instinct' and exam/test/continual-assessment data;
- that **some teachers are 'in turmoil'** ... having both Foundation and Higher tier students in the same class ... that estimating grades and putting students in rank order 'has been heart-wrenching at times' ... that when the cohort is very large (e.g. more than 1000) it is hard to cope with the process of estimating grades and ranking students;
- that in order to arrange students in order of merit (ranking) some teachers are **looking at the grades allocated to them over the whole of Year 9 to Year 11**; dealing with the ranking of students in the 4-to-5 GCSE grade interval:
- that most teachers are **ranking GCSE candidates across the whole cohort**, not within each of the two tiers;
- that **students' responses to 'crossover' questions** (questions that appear in both Higher and Foundation tier papers) can help teachers arrange the students in the

grade 4 → 5 interval in order of merit ... that 'Year 10 students at the lower end of the Higher tier' benefit from practising 'crossover' questions;

information about the progress and attainment of students other than their mock GCSE results that teachers are using to estimate GCSE exam grades:

- that some teachers have been looking at **students' work at home since schools closed** ... taking into account the extent to which students are watching 'revision videos', submitting work, responding to teacher-feedback (whether they are still taking their learning seriously) ... that some teachers have been 'asked' by senior leaders, and **all teachers have been advised by Ofqual, not to base estimated grades on students' responses to any work set after the schools closed**, because, as students' home circumstances vary, it would be unfair to do so;
- that judgements about a student's attainment such as 'the student works very hard and under normal circumstances would have achieved one grade higher than his grade in the last mock exam' are being **taken into account only very rarely** owing to the unreliability of such evidence;
- that some teachers are confident that, with all the data they have and their **knowledge of students over the years**, they can make 'pretty accurate predictions of where they would have been in the summer' ... that it is important for experienced teachers to guide newly-qualified teachers when using **qualitative evidence** ... that the more experienced a teacher is the easier it is to use 'gut feeling' alongside quantitative evidence ... that, when estimating exam grades, it may be **hard to use 'qualitative data', such as notes made when observing students in lessons, in a fair way**

the past GCSE maths grade boundaries that teachers are using in their estimation of students' grades this year:

- that **some teachers are using the highest past grade boundaries** in order not to convey 'false hope of achieving a high grade' ... making students aware of the fact that, even in normal circumstances, teachers don't know the grade boundaries until 'results day';
- **whether-or-not teachers require further 'official' guidance in order to achieve grade estimation fairness across exam Centres (schools and colleges).**

In what follows, click on any screenshot-of-a-tweet to go to that actual tweet on Twitter.

This is a part of a conversation about data and knowledge, other than students' marks obtained in mock exams, that are being used, or may be used, by teachers to aid the

estimation of grades and the ranking of students. The conversation was generated by this tweet from [Kathryn Darwin](#):

 **Kathryn** 🗣️ @Arithmaticks · 21h ▼
We are likely to all be using mock data to help us with predictions and rankings... Are you using any other data to help? How? #mathscpdchat

and included these from [Peter Atkinson](#), [DMaths](#) and [Kathryn Darwin](#):


 **Peter Atkinson** @MrA_Maths · 20h ▼
Replying to @Arithmaticks
[@hegartymaths](#) data also key as I can see how much students are engaging with revision, watching videos, extending their learning, responding to feedback etc. It tells me if they're taking their learning seriously and how quickly they were ramping up to exam day #mathsCPDchat


 **DMaths** @DeeVijayan · 20h ▼
We have been specifically asked not to base grades on any work set after school closure as students' personal circumstances vary and they cannot be held accountable 🙄 #mathscpdchat

 **Kathryn** 🗣️ @Arithmaticks · 20h ▼
This is the same as the ofqual guidance too 😊

 **Peter Atkinson** @MrA_Maths · 19h ▼
Completely agree, I meant the trends that I saw prior to lockdown. Those taking their exams seriously started working hard and revising long before March #mathsCPDchat

and these from [MontaigneMaths](#), [Peter Atkinson](#), and [Kathryn Darwin](#):

 **MontaigneMaths** @MontaigneMaths · 20h ▼
Replying to @MrA_Maths @Arithmaticks and @hegartymaths
Be careful on using Hegarty data as there are a few ways to cheat and it happens to a significant level.

 **Peter Atkinson** @MrA_Maths · 19h ▼
I appreciate there are always ways to bend the rules, but then you could say the same of mock exams (vast majority are out there in the ether if you look hard enough). That's why we need to use all forms of data combined (including instinct) to form the best possible prediction

 **Kathryn** 🗣️ @Arithmaticks · 22h ▼
The qualitative data we have on students also counts... But how are we considering this fairly? #mathscpdchat

 **Mary Pardoe** @PardoeMary · 22h ▼
Replying to @Arithmaticks
... like notes made when observing students in the past? #mathscpdchat



Peter Atkinson @MrA_Maths · 21h



Replying to @Arithmaticks

I think it's important to support & guide NQTs & @TeachFirst as much as possible when using qualitative evidence. I think the more experienced you are with exam season the easier it is to use 'gut feeling' alongside quantitative data
[#mathsCPDchat](#)

(to read the discussion-sequence generated by any tweet look at the 'replies' to that tweet)

No links were shared, but useful up-to-date official information about the whole process of estimating exam grades can be found on the [NCETM Qualifications and Curriculum](#) page.