National Centre
for Excellence in the
Teaching of Mathematics

Guidance on Marking and Feedback for Secondary Mathematics Teaching

Throughout this document, 'marking' refers to an act of signalling to a student whether their solution to a problem, or answer to a question is correct, or indicating to them where an error has been made (such as by circling or underlining) while 'feedback' (written or otherwise) refers to a qualitative comment, question or prompt intended to provide some form of guidance, support or challenge.

The guidelines

- Marking and feedback should be appropriate to the task set and the student's response to that task. There is no 'one size fits all' model.
- Planning for a lesson or teaching sequence should consider opportunities for feedback and how and when students should act upon it.
- Much feedback offered to students could be verbal. Written feedback might be offered to students to move their learning forward if it is the most efficient and effective way to address their errors and support them in developing sufficient understanding to access the next part of a topic.
- It should not be a routine expectation that next steps or targets be written into students' books. The next lesson should be designed to take account of the next steps.
- It should not be an expectation that recurring errors or common misconceptions be addressed through individual comments in individual student's books. Where a number of students share a misconception, this should be addressed in lesson time.

What to mark and what to offer feedback on?

The teacher's intended purpose for the task, and the students' work on that task, will determine what type of marking and/or feedback is appropriate. Where a task is designed to build aspects of fluency such as accuracy, efficiency of method, procedural competence, etc. it is likely that marking will be an appropriate response either by the student, their teacher or by a peer.

As the EEF report, *A Marked Improvement* (April 2016), states:

> Careless mistakes should be marked differently to errors resulting from misunderstanding. The latter may be best addressed by providing hints or questions which lead pupils to underlying principles; the former by simply marking the mistake as incorrect, without giving the right answer.

Where a task is designed to build or check understanding of a concept, or to develop problem solving or reasoning skills, then feedback will be appropriate where misconceptions or misunderstandings are evident or if greater depth is expected or could be developed.

Consideration should be given to the way that this feedback is offered. Where classwork is designed to build students' understanding of a concept, it is likely that much feedback will be given verbally, allowing students to act immediately on it.

Note that "Ofsted does not expect to see any written record of oral feedback provided to pupils by teachers." (Ofsted Inspections: Myths, 2016)

Identifying whether a concept has been fully understood by a student is complex: a conversation between the teacher and student (or students) is likely to be most beneficial in supporting both the teacher's assessment and students' learning. This is often most productive when feedback is explicitly planned for within a lesson or teaching sequence.

Homework

Homework is commonly set in order to build on an idea or concept that has been taught and discussed in class. Where this is the case, simple marking of the homework will be appropriate. As with classwork, it *may* be appropriate to offer feedback if certain misconceptions have been exposed but it should not be the expectation that written feedback will routinely be given for this type of task. Where a significant number of students in the class have shown the same misconception, then this should be addressed in the next lesson, rather than through repeated written comments in students' books.

Written feedback

The provision of written feedback should be both efficient for the teacher and effective for the student. Dylan Wiliam (2014) identifies two principles for feedback:

- If students do not use the feedback to move their own learning forward, it's a waste of time.
- Feedback should be more work for the student than it is for the teacher.

Consideration should be given to when and how feedback is given in order for it to have the greatest impact. Hattie and Timperley (2007) state that 'simply providing more feedback is not the answer because it is necessary to consider the nature of the feedback, the timing, and how a student "receives" this feedback.'

Acting on written feedback

As students progress through secondary school, they should become increasingly responsible for their learning. Helping them to act effectively on feedback provided on their work is part of the teacher's role.

'Unless some time is set aside for pupils to consider written comments it is unlikely that teachers will be maximising the impact of the marking that they have completed out of class time.' (EEF, 2016)

The impact of successful feedback is likely to be reflected in students' sustained improvement in mathematical reasoning and understanding, and evident in the quality of their work.

The most important activities for teachers are the designing and teaching of the lessons. Marking and feedback strategies should be efficient, so that they do not steal time that would be better spent on lesson design and preparation. Neither should they result in an excessive workload for teachers.

Ofsted has confirmed that no aspect of these guidelines is in conflict with the contents of the School Inspection Handbook and 'myth-busting' information.