

Life after levels: teachers' views of the new Key Stage 2 Mathematics Test

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Earlier this month (5 July), the Department for Education published the results of the Key Stage 2 test¹. The publication was awaited with more anxiety than usual as this year's test was the first one on the new national curriculum. One of the major changes in the test is the removal of the 'old' national curriculum levels 3, 4 and 5, where children were expected to reach at least a level 4. The level 6 paper for the most able children has also gone and test scores are now reported as 'scaled scores'². Each pupil now has to achieve at least a score of 100 to reach the expected standard³. It seems like a minor change with little impact on how teachers teach mathematics and prepare children for the test, but recent findings from our Nuffield-funded study suggest otherwise⁴.

In our study we interviewed thirty Year 6 teachers in schools performing both below and above the floor standard in Mathematics; interviews took place prior to the changes in the test in May/June 2015, and again after the changes in the test in May/June 2016. In the interviews in 2015, levels were one of the key topics teachers talked about when we asked them about notable features of the test that would inform their teaching. They explained how each of the two written Maths test papers would start with easy level 3 questions, have level 4 questions in the middle and finish with the difficult level 5 items at the end. This order of questions according to difficulty level would allow the lower attaining children to access the test, according to these teachers, and would build their confidence in answering the questions and their motivation to do well on the test. Teachers tell us in the second round of interviews, how all the questions are now 'at level 5' and how some of their lower attaining children stared at them in horror when opening their test booklet, asking them where the easy questions had gone.

Not only does the abolition of levels seem to have an impact on children's motivation and confidence in test taking, it also appears to have a profound impact on how teachers come to understand and teach

¹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/534573/SFR30_2016_text.pdf

² A pupil's scaled score is based on their raw score. The raw score is the total number of marks a pupil scores in a test, based on the number of questions they answered correctly. The Standard and Testing Agency develops tests each year to the same specification, but because the questions must be different, the difficulty of tests may vary slightly each year. This means that the raw scores pupils get in the tests need to be converted into a scaled score to be able to make accurate comparisons of pupil performance over time. Every scaled score will represent the same level of attainment for a pupil each year, so a pupil who scores 103, for example, in 2016 will have demonstrated the same attainment as a pupil who scores 103 in 2017. A scaled score of 100 will always represent the expected standard on the test. Pupils scoring 100 or more will have met the expected standard on the test. In 2016, panels of teachers set the raw score required to meet the expected standard on each test.

³ <https://www.gov.uk/guidance/2016-key-stage-2-assessment-and-reporting-arrangements-ara/section-2-key-changes>

⁴ www.highstaketesting.co.uk

mathematics. Prior to the introduction of scaled scores, teachers would talk about gradually building up the level of difficulty when teaching specific mathematical content areas, such as ‘number sense and calculation’, ‘data handling’ or ‘shape and space’. Level 3, 4 and 5 test items on past Key Stage 2 test papers would help them understand the hierarchical nature of mathematics and how to introduce children to for example increasingly more difficult calculations (e.g. moving from one to multistep problems, or from adding and subtracting whole numbers to adding and subtracting decimals). Resources such as Test Base would allow them to access available questions according to content area and difficulty level and they could simply download relevant questions when teaching a specific skill. Now that the levels have been removed, some of the teachers tell us that they just focus on getting all students to perform at level 5 in number and calculation as this is where most of the marks on the test are given and some hardly teach shape and space at all. These teachers also talk about moving towards a more ‘mastery style’ of teaching where they ensure that all students master the basics before they move on to teach more complex skills or other (more complex) content domains, such as algebra or geometry.

It is too early to know how widespread these changes are and the effect it will have on children’s understanding of mathematics. Our study however indicates that we need to keep a close eye on the breadth and depth of what our children are learning as some of these changes may be masked by an average single test score.