Interwoven Maths

Why is nobody talking about behaviour?

Nathan Day 28 October 2026 **interwovenmaths.com/behaviour**

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Note: all views expressed below are my own, and not those of my employer or of any other organisation I am associated with.

There are plenty of discussions in maths education at the moment about problem solving, mathematical modelling, oracy, the use of technology in the classroom, and more. All of this comes as we prepare for curriculum reform, try to improve teacher retention, and tackle ever-persistent attainment gaps.

Rarely a month goes by without a new review being published, a new conference being held, a new set of resources being shared, a new panel being convened, or a new teaching approach starting to gain momentum.

However, one topic feels conspicuously absent from almost all of these discussions: **behaviour**. Not just disruptive behaviour, but also the non-disruptive actions that hinder learning, such as not listening during class discussions or not attempting questions. [1]

It is my contention that pupil behaviour is a factor across the big issues we are facing in mathematics education. And we will struggle to tackle those issues if we do not reckon with the role behaviour plays in sustaining them.

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1. *"Managing a child's misbehaviour does not necessarily lead to that child learning: they may be quieter, but not necessarily engaging with the content of the lesson"* (**EEF, 2019**, p. 16).

1. Pedagogical choices

The issue

It is widely recognised that maths lessons in England too rarely give pupils opportunities to reason mathematically, tackle unfamiliar problems, discuss their ideas, and build wider mathematical skills than carrying out procedures. This is described by Ofsted, [2] the Observatory for Mathematical Education, [3] and the recent Curriculum and Assessment Review. [4]

In response, there are growing calls to incorporate more problem solving, [5] more modelling, [6] more data analysis, [7] more manipulatives, [8] and more oracy [9] into our maths lessons.

However, these approaches face many barriers. Some, such as a crowded curriculum and a lack of teacher expertise, are often recognised. [10] Behaviour, meanwhile, not so much.

The role of behaviour

> ***"In sum, novel work[11] stretches the limits of classroom management and intensifies the complexity of the teacher's task of orchestrating classroom events. Some teachers avoid these struggles over work demands by simply excluding novel work from the curriculum altogether."***
>
> Doyle, 1988, p. 174

Almost 40 years ago, Doyle described the challenges that more open tasks pose for classroom management and ensuring behavioural issues do not get in the way of the intended learning of the tasks. Ever since, behavioural concerns have been cited as reasons why teachers avoid otherwise desirable practices such as group work,[12] use of manipulatives[13] and discussion-based lessons,[14] in favour of textbooks and written work that make classroom control easier.[15] This is especially true with the low-prior-attaining pupils who might stand to gain the most from them.[16,17]

On a wider scale, teachers with less disciplined classes are less likely to set tasks with no obvious solution, ask pupils to think critically, or have them work together in small groups, a pattern found in almost every country surveyed, including England.[18] And even when such tasks are attempted, classroom management problems can strip the mathematics out of them.[19] A similar issue can be seen in science, with teachers citing behaviour as a barrier to practical work.[20]

As Doyle says, this is not an argument against classroom practices that go beyond fluency and recall.[21] But it explains why pushing for those practices should come alongside suggestions, training, adaptations, and measures to address the ways pupil behaviour can limit their effectiveness. Where ambitious practice is built on clear expectations of behaviour, it can work.[22,23,24,25]

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2. *"In most schools visited, pupils did not practise problems enough that required them to explain, prove, justify or describe relationships"* (**Ofsted, 2023**, para. 107).
3. Of Year 8 maths lessons: *"In 64% of lessons, the majority of lesson time was focussed on developing fluency; problem solving was dominant in 27% of lessons and reasoning in 9% of lessons"* (**Observatory for Mathematical Education, 2026**, p. 63).
4. *"pupils often have limited opportunity to engage deeply with foundational mathematical concepts and have insufficient time for more challenging, non-routine problem solving"* (**Department for Education, 2025a**, p. 93).
5. *"Increase the rigour of mathematical reasoning and problem solving for all students, including specifying more clearly what, when and how students should learn"* (**Maths Horizons, 2025**, p. 19, Recommendation 3).
6. *"There is increasing recognition of the need for greater attention to data science, computational thinking, modelling and simulation within the intended curriculum"* (**Golding et al., 2026**, p. 18).
7. *"Use real data to solve realistic statistical problems wherever possible, … reduce the emphasis on technical fluency and by-hand calculations"* (**Macey and Rycroft-Smith, 2026**, p. 2).
8. *"At the same time, experiences that develop relational and measure-based reasoning, including use of manipulatives and a variety of other representations, should continue alongside number work, supporting a coherent progression into formal algebra"* (**Golding et al., 2026**, p. 10).

9. *"We would argue that there is no better time to finally harness the transformative power of oracy for all children in our schools"* (**Morgan and Hawkins, 2025**).
10. *"Several HoDs referred to the difficulties teaching problem-solving faced by inexperienced teachers and those lacking in confidence, whilst others referred to the need to adapt resources, and time constraints, particularly for low and middle sets"* (**Observatory for Mathematical Education, 2026**, p. 63).
11. *"Novel work consists of assignments for which students are required to assemble information and operations from several sources in ways that have not been laid out explicitly in advance by the teacher. Novel tasks in math, for example, would involve such processes as deciding which operation fits a particular problem or combining algorithms already learned into a chain of operations to solve a problem"* (**Doyle, 1988**, p. 173).
12. *"Although the large amount of group work was popular with most students, some teachers complained about it leading to disruptive behaviour"* (**Hanley et al., 2016**, p. 4).
13. *"Some teachers reported that manipulatives were scarce in their schools and/or potentially problematic to manage, in some cases making them seemingly not worth the effort involved. Some students were seen to take the opportunity provided by the appearance of practical equipment to lose attention, and teachers often felt that many students did not really need them"* (**Foster et al., 2026**, p. 15).
14. *"For some, the open teaching style, perceived by teachers as the ICCAMS-favoured style, was often claimed to be difficult for already disengaged students and then behaviour management became a problem"* (**Pampaka et al., 2021**, p. 84).
15. *"I'm senior member of staff, I'm very experienced and I am supposed to be good at managing pupils and classes—it's supposed to be one of my strengths. And yet I've got a Year 7 class where I've got to plan the lesson around control. . . get their heads down, get them writing, punish someone early in the lesson to send out a message"*; *"Even here there are classes where I can't do what I would like to do with classes. There are times when I have to get the textbooks out and get them writing because some pupils are messing around"* (**Haydn, 2014**, p. 46).
16. *"In England, students with lower prior attainment at the end of primary school or from a more disadvantaged socioeconomic background tend to experience a curriculum that emphasises number, with less mathematical reasoning, geometry and fewer experiences of mathematical problem-solving. Students with low prior attainment are also less likely to experience mathematics lessons that encourage discussing mistakes, sharing students' ideas, making connections and engaging with realisable or authentic contexts"* (**Joint Mathematical Council of the United Kingdom, 2026**, p. 4).
17. *"There was also a suggestion that, as teachers became more confident in their ability to choose between resources and to alter the resources offered by the intervention, they may have chosen not to use manipulatives, especially with higher-attaining classes or for behavioural reasons with lower abilities"* (**Jerrim et al., 2015**, p. 49).
18. *"Teachers with less disciplined classes also tend to engage their students less frequently in practices pertaining to cognitive activation, such as presenting tasks for which there is no obvious solution, giving tasks that require students to think critically, having students work in small groups to come up with a joint solution to a problem or task"* (**OECD, 2019**, p. 108).
19. *"Interestingly, classroom management problems appeared to play a large role when tasks declined into a complete lack of mathematical engagement on the part of the students. This suggests that teachers were struggling with keeping students under control in addition to keeping them focused on the mathematics"* (**Henningsen and Stein, 1997**, p. 537).
20. *"Around a third of respondents (33%) highlighted student behaviour as a barrier to delivering hands-on practicals"* (**EngineeringUK, 2025**, p. 3).
21. *"The point here is not that current practices in mathematics classes should be preserved. Rather, the argument is being advanced that any attempt to reform teaching in mathematics must come to grips with the situational forces that shape the curriculum and hold it in place as a classroom event. Only if such classroom knowledge is incorporated into reform proposals will the quality of students' work change"* (**Doyle, 1988**, p. 179).
22. A maths teacher visiting The Totteridge Academy, a non-selective school in north London, in 2018: *"The key to success here is group accountability. The groups are consistent from one lesson to the next and they accumulate points as a group over the term. Anyone in the group may be called upon to offer an explanation to the whole class"* (**Horley, 2018**).

23. *"The behaviour of pupils is outstanding"*; *"Leaders and teachers manage pupils' behaviour exceptionally well. They have a clear and consistent approach to supporting pupils, which is understood by all staff"* (p. 6). *"In 2018, pupils at the end of Year 11 achieved well in a range of subjects. Their progress was particularly strong in mathematics, with pupils, on average, achieving more than a grade higher than their peers with similar starting points nationally"* (p. 7) (**Ofsted, 2019**).
24. Of a system Cohen and Intili developed after finding that teachers were afraid of losing control during group work: *"behavior was controlled through a system of systematic training in cooperative norms and the allocation of a different role to each group member. The introduction of this new system resulted in a significant increase in the percentage of students in small groups and a reduction in the use of direct supervision, along with a sharp increase in the proportion of students observed talking and working together on the task"* (**Cohen, 1994**, p. 29).
25. *"As we have seen, students (and adults!) do not always discuss in helpful ways. Some are reluctant to talk at all, while others take over and dominate. Students therefore need to be taught how to discuss"* (**Mathematics Assessment Project, 2012**, Activity D).

2. Teacher retention

The issue

While recruitment to teacher training has improved, [26] the schools serving the most disadvantaged communities still find it hard to recruit and keep specialist maths teachers. [27,28] In the most disadvantaged fifth of schools, only 67% of maths hours are taught by specialists, [29] and Key Stage 3 classes are more likely to be taught by less experienced teachers. [30] Teachers' subject knowledge is one of the best-evidenced influences on how much pupils learn, [31] and filling gaps with non-specialist teachers can harm pupils' learning. [32] This issue particularly affects maths teaching, partly due to the wider career options outside teaching. [33]

Over the last few years, a lot of money has been put into addressing this issue [34] with training for non-specialist maths teachers [35], teacher training bursaries [36], scholarships [37], and retention payments of up to £6,000 a year for early-career maths teachers [38], worth most in disadvantaged schools [39].

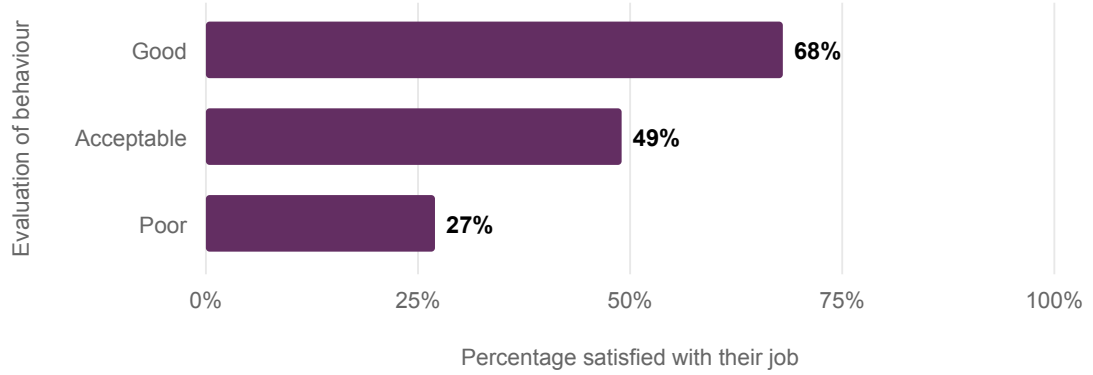
These interventions, however, do not address one of the main drivers for maths teachers leaving state education: behaviour.

The role of behaviour

One of the primary reasons teachers leave the classroom is pupil behaviour. [40,41] This is especially true of maths teachers, [42] who are also less likely to feel their training prepared them to deal with poor behaviour. [43]

Behaviour has a significant impact on job satisfaction, [44] wellbeing, [45] morale, [46] stress [47] and workload, [48] with workload itself a commonly cited reason for leaving. [49] And, as with so many other issues, it has a greater effect on the most disadvantaged schools [50,51] and the least experienced teachers. [52]

Figure 1. Teachers and leaders satisfied with their job all or most of the time, by how they rated pupil behaviour



Source: IFF Research and UCL Institute of Education (2026), Working lives of teachers and leaders: wave 4, research report, p. 128. Teachers and leaders in state schools in England, surveyed in spring 2025.

For many teachers, behaviour is a bigger concern than pay. On average, they would want a pay rise of over a quarter to work in a school where a few pupils disrupt most lessons, instead of one where poor behaviour is rarely a problem. [53]

If we want more pupils in the most disadvantaged schools taught by specialist and experienced maths teachers, we should look to address one of the main issues likely to be pushing teachers away from working in those schools, the misbehaviour that disproportionately affects disadvantaged pupils and their teachers.

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26. *"Recruitment to initial teacher training (ITT) in 2025/26 had improved on the year before and so far appears to be sustained for 2026/27, although secondary recruitment remains below target"* (**Worth and Scott, 2026**, p. 3).
27. *"These differences in the qualifications and experience of those teaching mathematics in lower secondary school are often more pronounced in schools with larger proportions of students receiving free school meals, and these schools also report more difficulties recruiting and retaining mathematics teachers"* (**Joint Mathematical Council of the United Kingdom, 2026**, pp. 1–2).
28. *"The proportion of KS3 teachers who agree or strongly agree that there are generally enough maths teachers in their department is substantially lower in the most disadvantaged schools (57%) than in the least disadvantaged schools (82%)"* (**Observatory for Mathematical Education, 2025**, p. 7).
29. *"In the most-deprived secondary schools, 79 per cent of English teaching hours are taught by a subject specialist and 67 per cent of maths teaching hours. Meanwhile, in the least-deprived schools, it is 87 per cent for English and 79 per cent for maths"* (**McLean and Worth, 2025**, p. 21).
30. *"only a negligible number of maths teachers not teaching KS3 are in the early stages of their career (< 5 years of experience), compared to 23% of those who do teach KS3 mathematics. … In the least disadvantaged schools in the sample, 62% of KS3 maths teachers are 'experienced' (> 10 years of teaching experience), while in the most disadvantaged schools, this falls to 32%"* (**Observatory for Mathematical Education, 2025**, p. 3).
31. *"The most effective teachers have deep knowledge of the subjects they teach, and when teachers' knowledge falls below a certain level it is a significant impediment to students' learning"* (**Coe et al., 2014**, p. 2).
32. *"Subject-specific shortages can impact the subjects a school can offer its pupils, or lead them to use non-specialist teachers. Evidence suggests this can negatively impact a pupil's learning"* (**National Audit Office, 2025**, p. 15).

33. *"There has been chronic under-recruitment and higher-than-average leaving rates for maths and science for many years, primarily due to STEM graduates having relatively attractive career options outside of teaching, compared to teachers of other subjects"* (**Worth and McLean, 2025**, p. 1).
34. *"DfE budgeted to spend £700 million on initiatives to improve the recruitment and retention of teachers in 2024-25"* (**National Audit Office, 2025**, p. 47).
35. NCETM (2025) *Inside the secondary non-specialist teachers SKTM programme*. 3 June. Available at: https://www.ncetm.org.uk/news/inside-the-secondary-non-specialist-teachers-sktm-programme/
36. Department for Education (2025b) *Funding: initial teacher training (ITT), academic year 2026 to 2027*. Last updated 7 May 2026. Available at: https://www.gov.uk/government/publications/funding-initial-teacher-training-itt/funding-initial-teacher-training-itt-academic-year-2026-to-2027
37. Department for Education (2024a) *Funding: initial teacher training (ITT), academic year 2025 to 2026*. Last updated 7 May 2026. Available at: https://www.gov.uk/government/publications/funding-initial-teacher-training-itt/funding-initial-teacher-training-itt-academic-year-2025-to-2026
38. Department for Education (2024b) *Targeted retention incentive payments for school teachers*. Last updated 1 June 2026. Available at: https://www.gov.uk/guidance/targeted-retention-incentive-payments-for-school-teachers
39. National Audit Office (2025) *Teacher workforce: secondary and further education*. London: National Audit Office (para. 2.11). Available at: https://www.nao.org.uk/wp-content/uploads/2025/04/teacher-workforce-secondary-and-further-education.pdf
40. *"The only exception was pupil behaviour, as leavers in 2025 were more likely to mention this than those who left between 2022 and 2023 (47% vs. 32%), although consistent with the 44% of those who left between 2023 and 2024"* (**IFF Research and UCL Institute of Education, 2026**, p. 149).
41. *"Teachers working in schools with good pupil behaviour and support to deal with disruptive behaviour are more likely to stay"* (**Worth et al., 2026**, p. 3).
42. Of maths teachers considering leaving the state sector, 68% said pupil behaviour was an important reason, against 59% of secondary teachers (maths n = 187) (**Department for Education, 2026d**, Table 108).
43. 41% of early career teachers of maths said their initial teacher training prepared them well to manage poor behaviour, against 52% of secondary early career teachers (maths n = 132) (**Department for Education, 2026d**, Table 41).
44. *"68% of those who reported good pupil behaviour were satisfied all or most of the time, compared with 49% where pupil behaviour was considered acceptable and 27% where it was rated poor"* (**IFF Research and UCL Institute of Education, 2026**, p. 128).
45. Among education staff who had thought about leaving the sector because of pressures on their health and wellbeing, 56% gave pupils' or students' behaviour as a reason, up 14 percentage points since 2022; 26% gave seeking higher pay (**Education Support, 2025**, p. 67).
46. Asked *"What is the impact of this verbal or physical abuse?"*: *"77% reported that it has affected their morale and enthusiasm for their job"* (**NASUWT, 2025**, p. 4).
47. Of the same members: *"62% experienced stress and half (50%) experienced anxiety"* (**NASUWT, 2025**, p. 4).
48. *"Finally, disruptive pupil behaviour and the demands of providing pastoral and additional learning support for pupils are a significant workload factor that affect teacher retention"* (**Worth et al., 2026**, p. 36).
49. Of education staff who had thought about leaving the sector because of pressures on their health and wellbeing, 66% gave volume of workload as a reason (**Education Support, 2025**, p. 67).
50. *"In classes in England where more than 60% of pupils came from disadvantaged backgrounds, around 18% of time was lost to disruption (on average), compared to 8% of time in classes with no disadvantaged pupils"* (primary and lower-secondary teachers combined, 2018) (**Jerrim and Sims, 2019**, p. 172).
51. *"When contemplating leaving teaching altogether, teachers in schools with the highest levels of disadvantage are more likely to cite behaviour as the reason for wanting to leave compared to teachers in the most affluent schools (17% vs. 13%)"* (**Teacher Tapp and SchoolDash, 2024**, p. 15).

52. *"Those who had been working as a lower-secondary teacher for 5 years or less lost (on average) 16% of their lesson to pupil disruption, compared to 9% for those who had worked as a teacher for more than 20 years"* (**Jerrim and Sims, 2019**, pp. 175–176).

53. *"For example, our model suggested that moving from a situation where 'poor behaviour is rarely a serious problem' to a role where 'poor behaviour from a few students significantly disrupts most lessons' would, on average, require an increase of 26.2% in annual pay to compensate"* (**Burge et al., 2021**, p. ix).

3. Attainment gaps

The issue

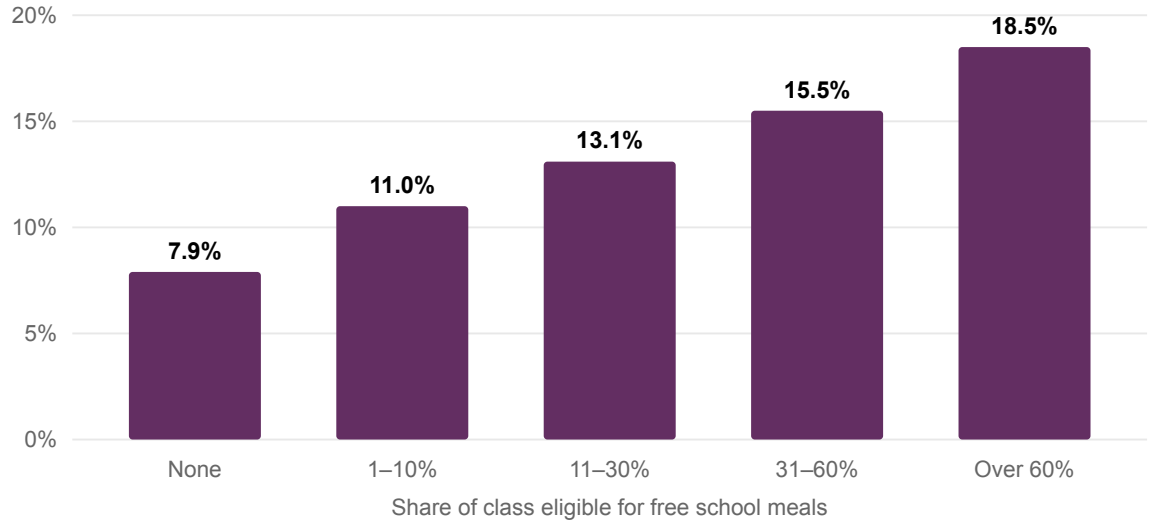
England continues to have a persistent disadvantage gap in maths outcomes, [54,55] with gaps widening in secondary school. [56,57] As they progress through their schooling, low-prior-attaining pupils generally fall further behind, [58] with only 28% of GCSE maths entrants with an average Key Stage 2 reading-and-maths score below 100 going on to achieve a grade 4 or above [59].

Narrowing these attainment gaps in maths is a major focus across the sector, [60,61] and yet, once again, little attention is given to how behaviour is one of the drivers of disadvantaged and low-prior-attaining pupils making less progress in maths. [62]

The role of behaviour

Schools with higher proportions of disadvantaged pupils are consistently found to be more affected by behaviour. This includes measures of time lost to disruption, [63] staff evaluations of behaviour, [64] and pupils' evaluations of behaviour. [65]

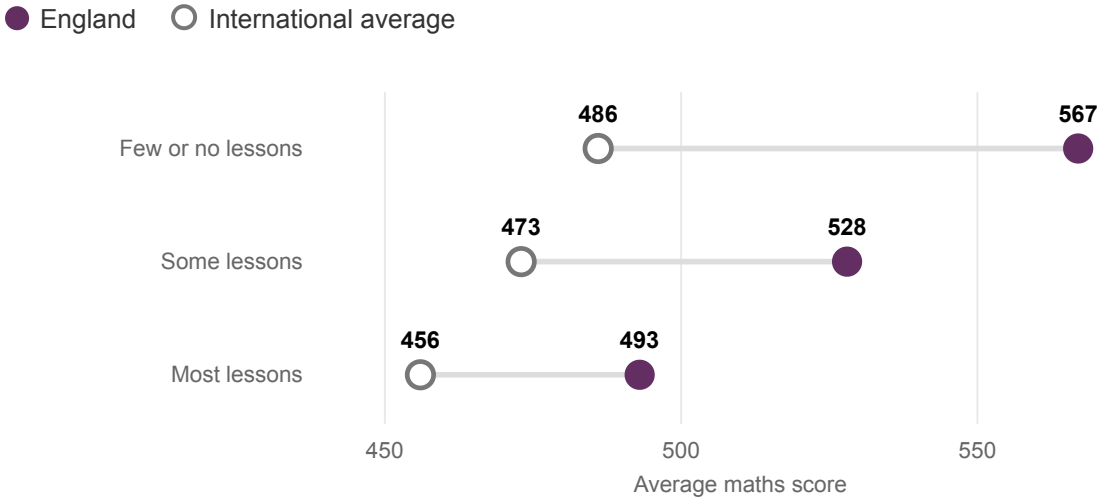
Figure 2. Share of lesson time teachers reported losing to disruption, by share of pupils in the class eligible for free school meals



Source: Jerrim and Sims (2019), TALIS 2018 research report for England, Table 6.1.3.

Similarly, low-prior-attaining pupils experience more disruptions to their lessons, [66] with behaviour management taking more than twice as much lesson time in classes of mostly low-achieving pupils. [67] These differences have measurable associations with outcomes, [68] especially where teachers struggle with classroom management. [69]

Figure 3. Average Year 9 maths score, by how often pupils report disorder in maths lessons, TIMSS 2023



Source: Richardson et al. (2025), TIMSS 2023 national report for England, Volume 2, Table 61.

Again, we find that these issues are especially apparent at Key Stage 3, [70,71] which is where we saw a widening of the attainment gap. If we are to look to narrow these gaps in progress and outcomes, we also need to narrow the behaviour gap that sees low-prior-attaining pupils experiencing more disrupted lessons.

54. Of pupils entered for GCSE mathematics in 2025/26, 54% of disadvantaged pupils achieved grade 4 or above, against 79% of other pupils (provisional figures) (**Department for Education, 2026b**).

55. *"In England, pupils who were eligible for FSM in 2025 achieved an average mathematics score of 448, significantly below the score for pupils who were not eligible for FSM (497)"* (**Department for Education, 2026c**, p. 137).

56. *"There are persistent gaps in mathematics performance linked to socioeconomic background in all four UK nations. These gaps continue despite extensive interventions and widen during lower secondary school"* (**Joint Mathematical Council of the United Kingdom, 2026**, p. 3).

57. *"Figure 3.3 shows that pupils from the least deprived IDACI decile were almost 20 percentage points more likely to meet the expected standard in primary mathematics than those from the most deprived decile. However, this attainment gap widened to more than 30 percentage points by GCSE"* (**Observatory for Mathematical Education, 2026**, p. 34).

58. *"During Key Stage 3, the gap between the lowest and highest attaining pupils in mathematics increases and the low attaining pupils fall further behind other pupils"* (**Hodgen et al., 2020**, p. 12).

59. Department for Education (2026b) *Key stage 4 performance: academic year 2025/26*. Explore Education Statistics, data sets "Key stage 4 subject entries and achievements by pupils at national level by characteristics (discounted)" and "Key stage 4 accountability metrics by disadvantaged status at local authority district level". Available at: https://explore-education-statistics.service.gov.uk/find-statistics/key-stage-4-performance/2025-26

60. *"In the last year there was renewed focus on inequality in mathematical education, in understanding and addressing attainment and opportunity gaps"* (**Observatory for Mathematical Education, 2026**, p. 21).
61. *"The disadvantage gap will be halved. Children from low-income backgrounds will achieve around a full grade higher in each of their GCSEs than is the case today"* (**Department for Education, 2026a**, p. 10).
62. In the maths element of Progress 8 in 2023/24, disadvantaged pupils scored −0.52 and other pupils +0.15. On average, disadvantaged pupils achieved about half a grade lower in GCSE maths than pupils nationally with similar Key Stage 2 results (**Department for Education, 2026b**).
63. *"In lessons where more than 60% of pupils were FSM eligible, 18% of lesson time (i.e. around 10 minutes of an hour-long lesson) was lost on average to managing behaviour within the classroom. The equivalent figure for classes with no FSM pupils was 8% (around 5 minutes) of lesson time"* (primary and lower-secondary teachers combined, 2018) (**Jerrim and Sims, 2019**, p. 174).
64. Teachers and leaders rating pupil behaviour in their school as poor or very poor: 9% in the fifth of schools with the lowest proportion of pupils eligible for free school meals, rising through 18%, 25% and 29% to 32% in the highest fifth (2025) (**Department for Education, 2026d**, Table 34).
65. Pupils in Years 7 to 13 saying misbehaviour interrupted all or most of their lessons in the past week: 30% of those eligible for free school meals, against 24% of those not eligible (May 2025) (**Department for Education, 2025e**).
66. *"Students in lower attainment groups are more likely to have less experienced and less qualified mathematics teachers but also experience more disruptions due to student behaviour in their mathematics lessons"* (**Joint Mathematical Council of the United Kingdom, 2026**, p. 4).
67. *"Behaviour management took up almost twice [sic] as much time when the target class had mostly low-achieving pupils (17%) compared to when there were no low-achieving pupils in the class (7%)"* (primary and lower-secondary teachers combined, 2018) (**Jerrim and Sims, 2019**, pp. 174–175).
68. *"The difference between the average mathematics score of those who reported disorderly behaviour in few or no lessons (567) and those who reported disorderly behaviour in most lessons (493) was 74 scale points compared to the international average of 30"* (**Richardson et al., 2025**, p. 128).
69. *"Class average pre-test attainment made more of a difference to students in classes with teachers who had lower ratings for classroom management"* (**Ingram et al., 2020**, p. 19).
70. *"When comparing pupil key stage groups on this question, in May 2025: pupils in KS3 (68%) and KS4 (64%) were statistically significantly more likely than pupils in KS5 (27%) to say that misbehaviour had stopped or interrupted their work in at least some lessons in the past week"* (**Department for Education, 2025c**, p. 56).
71. Pupils saying misbehaviour interrupted all or most of their lessons in the previous week of term: 33% at Key Stage 3, against 22% at Key Stage 4 and 10% at 16 to 19 (March 2025, data table *"behaviour_misbehaviour"*) (**Department for Education, 2025d**).

4. Why this is a maths issue

A common response, and one I have often heard, is that behaviour is a problem across all subjects, so it is not a maths issue. And there is truth to that: much of what improves behaviour happens at whole-school level. [72] But it seems, to me, to miss the point. Poor behaviour is the reality of many maths teachers and maths learners, and if we are to propose interventions to improve maths education in this country, they have to be designed within that context and with an awareness of these challenges. Not only that, but some aspects of behaviour are specific to maths. [73,74]

Some subject communities, such as chemistry and computing, seem to be doing more work in this area, [75,76] while in maths it seems largely absent from the conversation. [77]

72. *"While classroom-level strategies have a big impact on pupil behaviour, consistency and coherence are paramount at a whole-school level"* (**EEF, 2019**, p. 32).
73. *"The problems of sustaining novel work in mathematics classes would seem to be especially acute. Mathematics, as represented in the school curriculum, is often seen by students to be mysterious and abstract. … As a result, the threshold for students' perceptions of ambiguity and risk is likely to be low"* (**Doyle, 1988**, p. 179).
74. Of Year 9 pupils in England: *"In science, the percentage of pupils in England who reported disorderly behaviour in few or no lessons in 2023 (22%) was higher than in mathematics (19%). In science, the percentage that reported this in most lessons (11%) was below the corresponding percentage for mathematics (18%)"* (**Richardson et al., 2025**, p. 128).
75. The Royal Society of Chemistry's *Education in Chemistry* has published a series of *"six advice-packed articles so you can successfully manage student behaviour in your lab"* (**RSC Education, 2022**).
76. *"This course is aimed at secondary computing teachers who are looking to ensure the behaviour management and learning atmosphere in a computing environment enables progress. Participants will get the opportunity to look at the adolescent brain development, assess their own behaviours and look at computing related strategies such as rules, routines and habits as well as recognition, reward and interventions"* (**National Centre for Computing Education, 2026**).
77. The NCETM's modules for early career maths teachers follow the Early Career Framework (**NCETM, 2026**) but leave out its section on managing behaviour (**Department for Education, 2019**).

5. Why behaviour is not just a symptom

Another common claim is that if we get the other things right – if we develop a more relatable curriculum, a more engaging pedagogy, more motivating forms of assessment, and better teaching resources – then good behaviour will follow. But this is hard to defend.

While it is certainly the case that unengaging maths lessons can lead to disengaged maths learners, [78] it does not follow that engaging lessons alone will enable all pupils to engage with those lessons. [79,80] In fact, the things that do encourage good behavioural outcomes are consistency, [72] structure, [81] and expertise in classroom management. [82] By contrast, the worst behaviour is often seen at lunchtimes and lesson transitions, where pupils have little structure and direction. [83,84]

And even where one pupil's behaviour is a symptom of something else, its effect on other pupils is not: persistent disruption has been found to lower other pupils' GCSE maths results, with low-attaining pupils particularly affected. [85]

We cannot rely only on changes to our curriculum or pedagogy to fix behaviour, especially as behaviour is often what stops teachers from making changes to their pedagogy and stops pupils from learning the most from their curriculum.

78. *"Students often disengage from mathematics, finding little intellectual challenge as they are asked only to memorize and execute routine procedures"* (**Boaler and Staples, 2008**, p. 609).
79. *"When novel work is being done, activity flow is slow and bumpy. In comparison to lessons with familiar work, introductions to novel tasks are lengthy and work involvement and productivity are sometimes low. Indeed, rates for student errors and non-completion of work are high when novel work is assigned"* (**Doyle, 1988**, p. 174).

80. *"effective instruction alone is insufficient for establishing universal classroom management. Procedures that structure the classroom environment, encourage appropriate behavior, and reduce the occurrence of inappropriate behavior are necessary for strong classroom management"* (**Oliver et al., 2011**, p. 7).

81. *"In many schools, lessons were efficient because of the use of routines. … Pupils knew what was expected of them and what was going to happen next. This meant they could focus on new learning. The use of routines was associated with pupils being on task"* (primary schools) (**Ofsted, 2023**, para. 36).

82. From a review of classroom management programmes: *"Teacher's classroom management practices have a significant, positive effect on decreasing problem behavior in the classroom. Students in the treatment classrooms in all 12 studies located for the review showed less disruptive, inappropriate, and aggressive behavior in the classroom compared to untreated students in the control classrooms"* (**Oliver et al., 2011**, p. 5).

83. *"More than half of teachers report that behaviour is at its worst during lunchtimes"* (**Teacher Tapp, 2025**).

84. *"Misbehaviour often occurs in schools around the start and end of lessons and when moving around the school building. By intentionally promoting and practising successful transitions into the classroom, teachers are empowered to help their students to be ready to learn"* (**EEF, 2019**, p. 25).

85. *"a one-per-thousand increase in the Year-9 exclusion rate reduces KS4 Maths and English scores by 0.024 and 0.044 standard deviations"* (**Dorsett et al., 2026**, p. 3). *"The negative effects reflect disruption before exclusion, not the act of exclusion itself"*; *"Low-attaining pupils are particularly affected by Year 9 disruption"* (**Oppedisano and Thomson, 2026**).

6. Why teachers' voices matter

One of the reasons why behaviour is so under-discussed at the highest level of maths education discourse may be the lack of representation of practising teachers in those discussions.

Teachers' perceptions of behaviour differ consistently and markedly from those outside the classroom, [86] even those within their schools. [87] The closer people are to the classroom, the less positive their view of behaviour. [88] Despite the barriers to teachers talking freely about behaviour, [89] when researchers have asked maths teachers what gets in the way of their teaching, behaviour comes up, even in studies that weren't about behaviour. [90,17] And in evaluations of maths programmes, teachers talk about behaviour and yet, by the time we reach the recommendations, it has gone. [91]

It is perhaps no surprise, then, that so few teachers feel their views are valued by policymakers. [92] Not listening to teachers' voices, especially teachers in the early stages of their careers and the most challenging schools, also leaves the recommendations we produce disconnected from the classrooms they are meant for. When proposals for maths teaching are written without the realities of behaviour in mind, it is teachers who are left to bridge the gap, or to quietly set them aside. [93]

86. From four studies drawing on the accounts of teachers, student teachers and pupils: *"There is evidence to suggest that the very positive picture of behaviour in schools presented by the Steer Report (2009), and the suggestion that behaviour is at least satisfactory in 99.7% of schools (Ofsted, 2012a) seriously underestimate the extent to which deficits in classroom climate and poor pupil behaviour are a problem in English schools"* (**Haydn, 2014**, p. 58).

87. *"When comparing only secondary school leaders and teachers with year 7 to 13 pupils on responses to this question, in May 2025, secondary school leaders (84%) were statistically significantly more likely than secondary school teachers (60%) or year 7 to 13 pupils (57%) to say their school had been calm and orderly 'every day' or 'most days' in the past week"* (**Department for Education, 2025c**, p. 41).

88. *"As in previous years, there was divergence between school leaders, teachers and pupils on their responses to several survey questions relating to school environment and misbehaviour; school leaders tended to give more positive responses than teachers, who in turn tended to give more positive responses than pupils"* (**Department for Education, 2025c**, p. 7).
89. *"The ability to manage pupil behaviour effectively is also seen as an important facet of teachers' professional self-esteem (Haydn, 2012), so it is not always easy to get teachers to speak with complete frankness on this issue"* (**Haydn, 2014**, p. 37).
90. *"Departments that most struggled to implement ICCAMS were often those that said they had either wider school issues that demanded teacher time and priorities, problems managing student behaviour, or struggles with staff retention, unfilled vacancies, and recruiting good mathematics teachers"* (**Pampaka et al., 2021**, p. 80).
91. Teachers in the EEF's pilot evaluation of Thinking Mathematically, a Year 7 problem-solving programme, reported that pupils less secure in maths *"were more likely to become overwhelmed or disrupt the session"* (p. 51). None of the report's twelve recommendations went on to address pupil behaviour or disruption (**Bury et al., 2026**).
92. *"In 2018, 29% of lower-secondary teachers in England agreed that teachers were valued by society, 16% that teachers were valued by the media and around a tenth that teachers' views were valued by policymakers"* (**Jerrim and Sims, 2019**, p. 116).
93. *"In most instances, however, teachers respond to pressures on work flow in the classroom by redefining or simplifying task demands, softening accountability to reduced risk, or creating a highly familiarized task environment to smooth out possible workplace tensions in advance. Thus, tasks that appear on the surface to elicit comprehension or analytical skills (e.g., in teacher presentations to the class or in student tests) are often accomplished in circumstances that alter fundamentally the character of their demands on students"* (**Doyle, 1988**, p. 174).

7. Conclusions

An understanding of the realities of classroom behaviour should underpin all discussions of how we can improve maths education, just as behaviour impacts all aspects of how maths education is delivered.

Behaviour shapes which lessons maths teachers feel able to teach and whether they stay in the schools that need them most, and it can limit how much disadvantaged and low-prior-attaining pupils learn.

As a maths education community, we should support maths teachers by developing their classroom management, by creating resources that are practical for use in their classrooms, by amplifying their voices, and by not blaming them, implicitly or explicitly, for the compromises they feel they have to make in the classroom.

There are no easy solutions to the problem of behaviour. But the easiest path, pretending it is not even a problem, is no solution at all.

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About

Nathan Day is a maths teacher and the creator of Interwoven Maths. Version 1.0, 28 October 2026.

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