

How is data used in schools today?

A 2019 survey of current practice





When FFT was established in 2001, our principal (and moral) purpose was to improve the use of data in schools and thereby outcomes for children and young people. This was largely based on our belief that we could have a positive impact on four central data tenets, namely:

- the quality and presentation of education data
- the profession's knowledge and understanding of data
- the provision and use of data by central government and Ofsted
- the culture of data use in schools

The culture or some might say 'cult' of data use in schools – the 'what', 'how', 'why' and 'who' of data decision making – has long fascinated us. Working with schools over many years, we've seen countless different approaches employed – from simple to sophisticated, autocratic to laissez-faire, pupil-centric to high-level governance. Some of these approaches appear to have been successful, others less so. The key question, of course, has always been 'why'?

This leads us to our report – 'How is data used in schools today?' – a systematic, national review of data use in schools today. We hope that you find the results as fascinating as we do. More importantly, we hope that you will use the report to think about data use in your own school and how it can have a positive impact on pupils, parents and teachers.

Paul Charman

Managing Director, FFT Education



This report has given me an opportunity to combine my current interest – surveying teachers about their lives every single day – with my long-standing curiosity about how schools are using data. I have used schools data for the past 15 years in my own research, including setting up FFT Education Datalab. Last year, I helped the Department for Education review how schools are using data, making a number of recommendations intended to minimise workload. My time chairing the DfE working group led me to realise how little we actually know about how schools use data. This report seeks to rectify that, providing a baseline survey that we hope to build on in future years.

The teachers responding to this survey use the Teacher Tapp survey app, answering just three questions every day at 3:30pm. The questions were asked during spring term 2019. Around 3,000 teachers answered each day, but exact observations for each question vary slightly. We have restricted our analysis here to those who work in state-funded schools in England, re-weighting the sample to ensure the panel reflects the make-up of the population of teachers in the School Workforce Census. Learn more at: teachertapp.co.uk.

Becky Allen

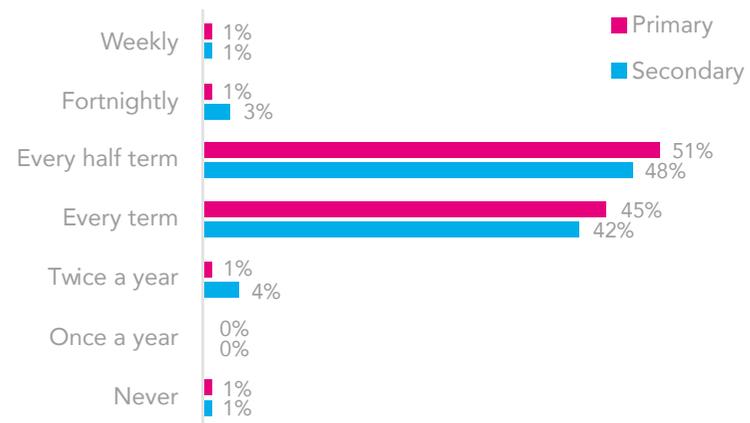
Chief Analyst and Co-Founder, Teacher Tapp

How frequently do senior leaders request attainment information from classes?

This report focuses on the data and information that is collated centrally in schools, and shared between teachers, senior leadership and parents. We start by asking how frequently the process of collating attainment data happens, before looking in more detail at its source and its use.

Teachers are currently asked by senior management for attainment information either every half term or every term in both primary and secondary schools.

Figure 1: How frequently are you asked to provide any data on pupils to your senior management team (or how frequently do you receive it if you are SLT)?

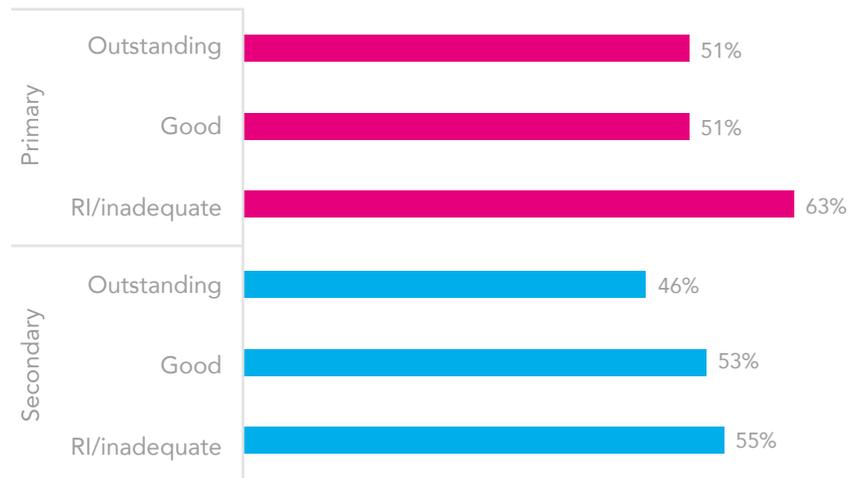


Survey dates: 15/10/2018 and 25/01/2019 (N=2,969)

These “data drops” are more frequent in schools currently judged by Ofsted as requires improvement (RI) or inadequate. They are also a little more frequent in schools within Multi Academy Trusts (MATs).

Schools that are struggling on key performance metrics might have more frequent data drops for a variety of reasons. Their management might feel it is more appropriate, given the cycle of improvement taking place at the school. They might have been given advice to collate data frequently by an inspector, Regional Schools Commissioner, local authority or MAT. Alternatively, they might simply perceive that outside agencies want frequent data collection, even though no advice has been given to that effect.

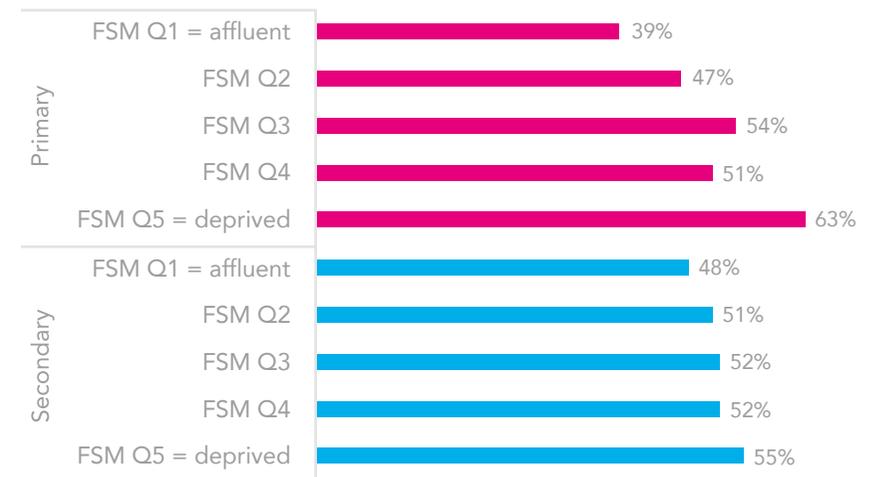
Figure 2: Proportion of teachers reporting half-termly or more frequent data drops to SLT



The frequency of “data drops” varies considerably according to the social profile of the school. In the 20% most affluent primaries, just 39% request data half-termly or more, versus 63% for the most disadvantaged primaries (measured by the proportion of students eligible for free school meals). The pattern is less striking across secondary schools, but still persists.

A possible explanation is that more disadvantaged schools have larger management teams to process the data and feel they need it thanks to greater complexity of problems across their student body.

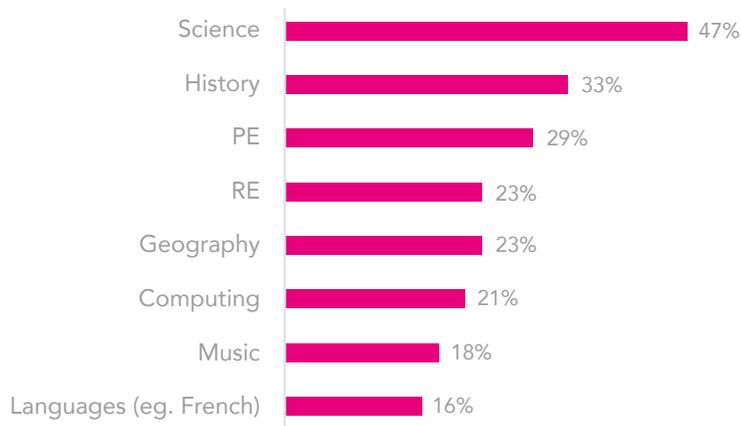
Figure 3: Attainment data requested half-termly or more frequently, shown by free school meals proportion quintile



Teachers report little variation in frequency of data requested within schools, either by subject in secondary school or by year group in primary school.

About half of primary schools request attainment tracking data in science, with less than a third asking for attainment data in any other subject to be routinely deposited. Surprisingly, we also find that the required deposit of foundation subject data in Key Stage 2 is only a little higher than it is in Key Stage 1.

Figure 4: Primary – In which of these subjects are you asked to submit pupil assessment data to a central tracking system?

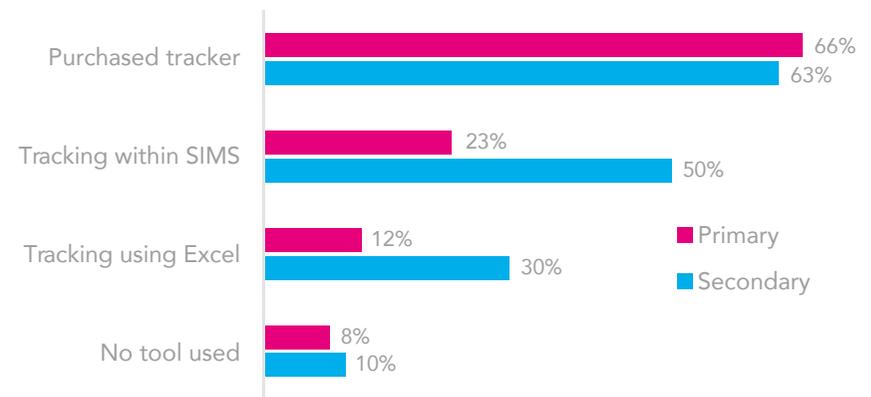


Survey dates: 15/10/2018 and 25/01/2019 (N=2,969)

This data is typically held in a software package designed especially to host and analyse pupil tracking data in the majority of primary schools.

Secondary schools are more likely to use a combination of hosting it in their management information system and purchasing specialist software to process or analyse the data. More elaborate data processing systems are, of course, possible in secondary schools which have larger management teams than primary schools.

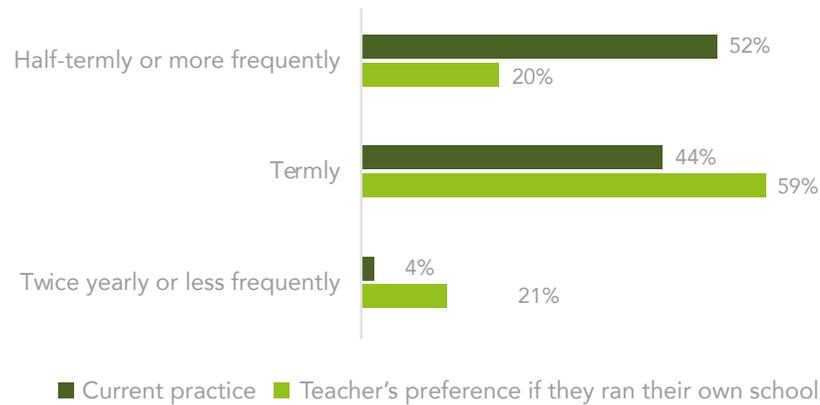
Figure 5: Does your school use any of these data tracking tools? Tick all that apply.



Survey date: 15/10/2018 (N=2,135)

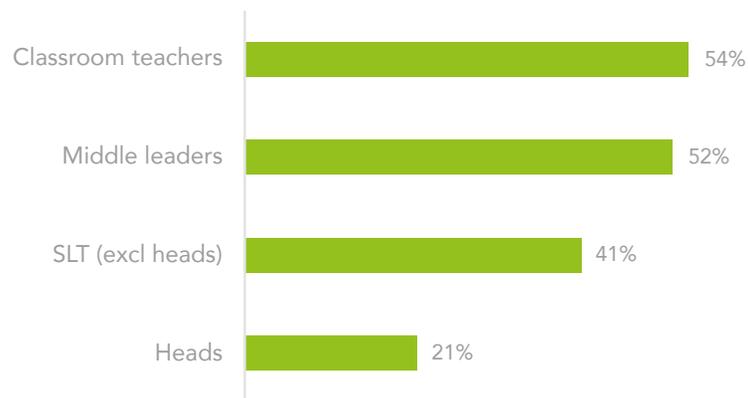
Teachers feel it would be optimal to collect this type of tracking data slightly less frequently than is current practice, though the majority of teachers feel it should be collected at least termly.

Figure 6: If you ran a school, how frequently would you ask teachers to provide you with pupil attainment data?



Survey dates: 15/10/2018 and 25/01/2019 (N=2,969)

Figure 7: Proportion of teachers who believe data collection should be less frequent than is current practice



It is curious that one-in-five headteachers would collect data less frequently than they currently report doing, if left to make their own choice! This does suggest that some headteachers perceive some (real or imagined) outside pressures regarding data collection.

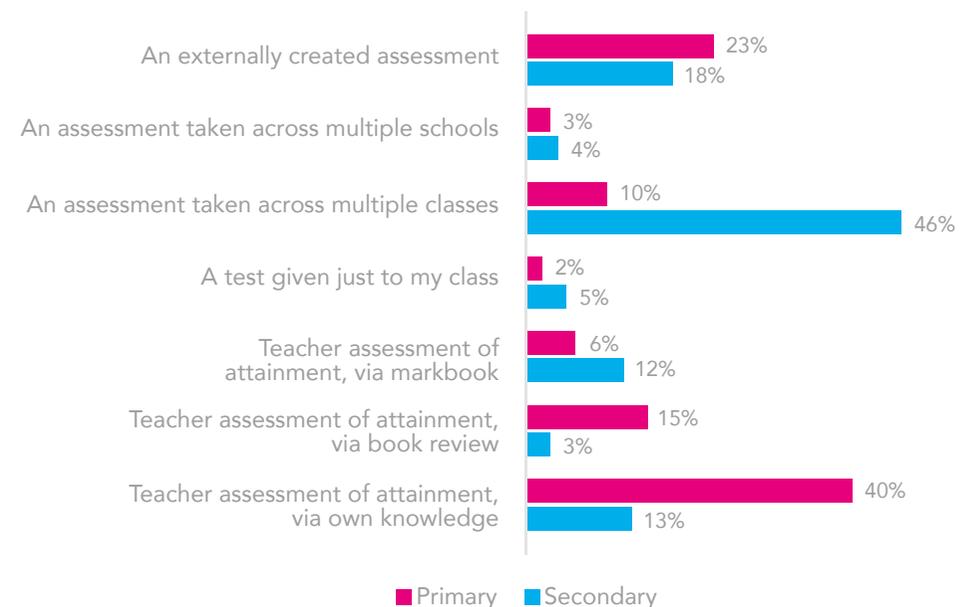
1 in 5

Proportion of headteachers who believe data collection should be less frequent than is current practice.

What sort of attainment data do senior leaders tend to receive?

The type of attainment data used across phases is quite different. Primary teachers are either using their own judgement of attainment, perhaps supplemented by reviewing books, or they are using a purchased standardised test. Secondary departments are most frequently depositing data from a subject test, co-ordinated across school department.

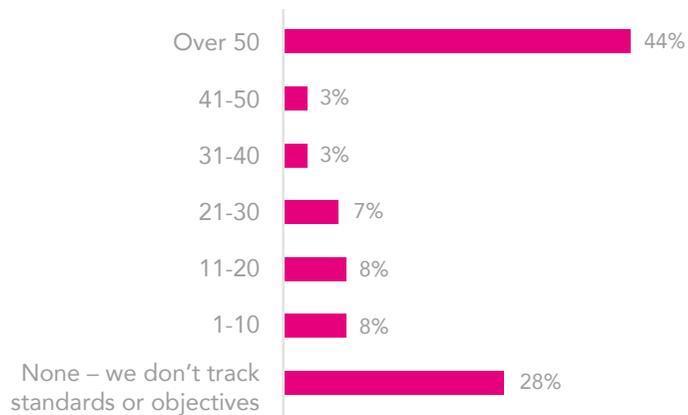
Figure 8: Think about the last pupil attainment data you provided to SLT or submitted to a data tracking system. Was this data created from...?



Survey date: 15/10/2018 and 04/01/2019 (N=2,569)

The number of objectives that primary teachers are asked to submit each year gives a sense of the type of information that is being collected. It suggests quite detailed attainment information on small chunks of the curriculum are being recorded.

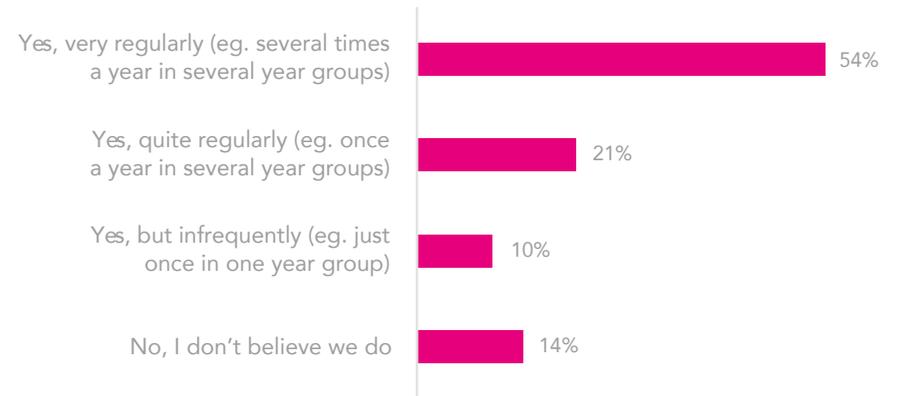
Figure 9: How many pupil standards or objectives must you track across all subjects this year for your class? Try to estimate how many you track over the whole year, rather than at one point in time.



Survey date: 03/04/2019 (N=822)

Many primary schools make intensive use of standardised tests at Key Stage 2, especially those that have been judged as requires improvement or inadequate by Ofsted.

Figure 10: Does your school use any commercial standardised tests at any point during Key Stage Two (in maths, English, reading or any other subject)?



Survey date: 18/11/2018 and 24/01/2019 (N=768)

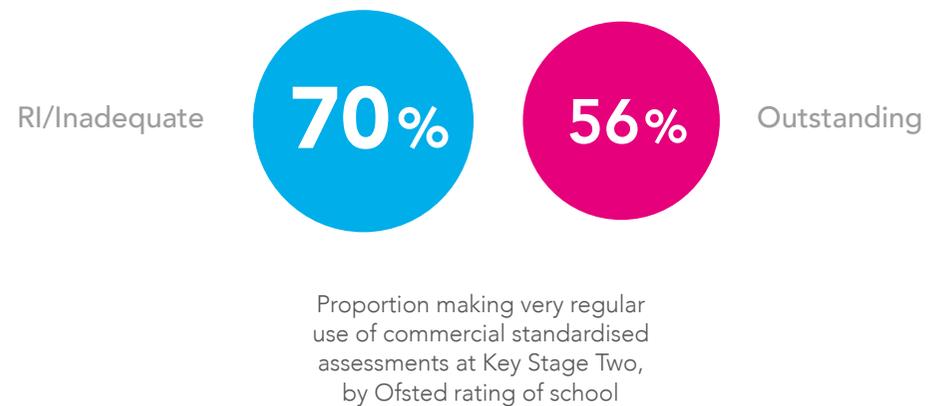
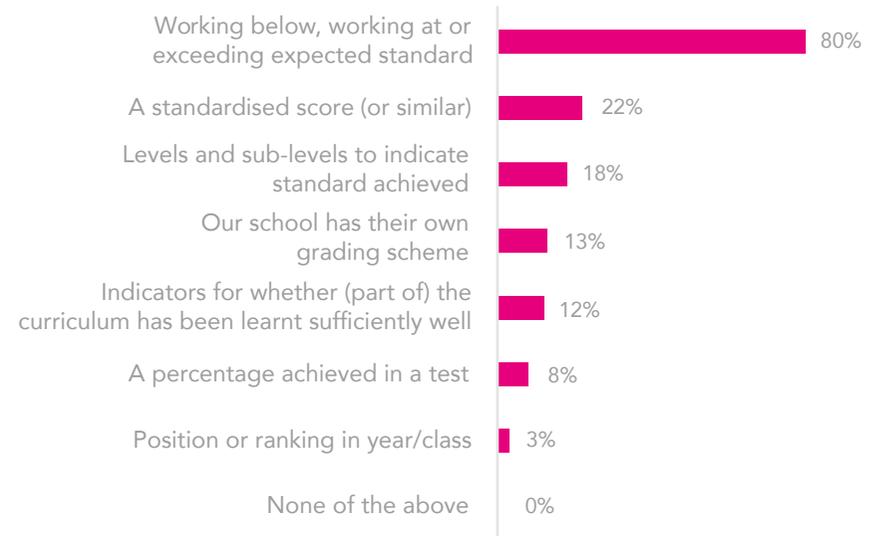


Figure 11: Proportion making very regular use of commercial standardised assessments at Key Stage Two, by Ofsted rating of school



It is interesting that, although primary schools do make use of tests, they most frequently convert attainment information into simple indicators of whether the student is working at, below or above the expected standard.

Figure 12: How are you measuring attainment/progress in maths and English?

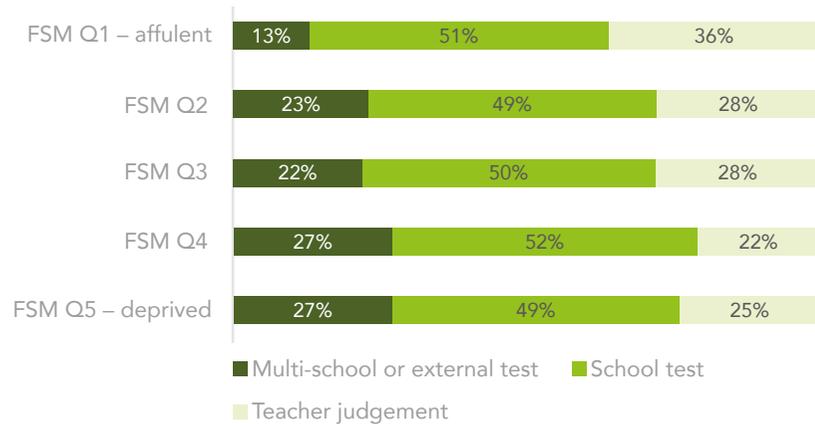


Survey date: 10/04/2019 (N=866)

In secondary schools, 77% of teachers report that their school uses standardised tests at some point, though this does include Year 7 baseline assessments. We can see that schools with higher free school meals proportions are more likely to make frequent use of these external assessments.

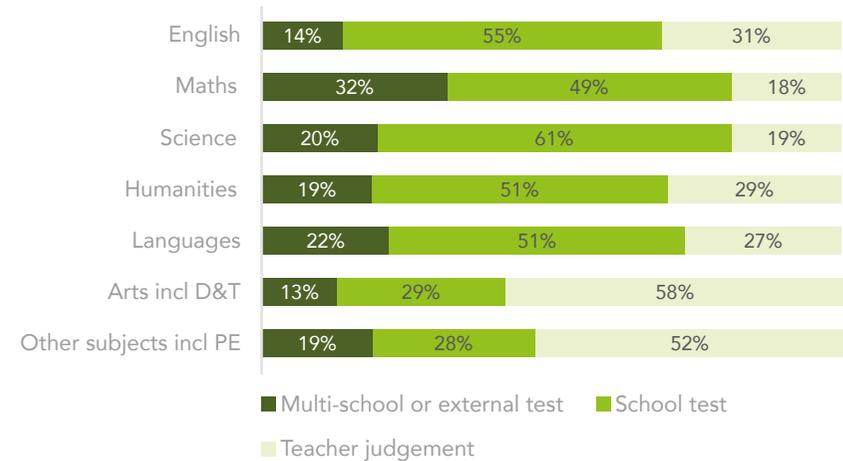
80%
 Percentage of primary schools using simple indicators to measure attainment/progress in maths & English

Figure 13: Secondary – type of data deposit by school free school meals proportion



There are some differences across subject departments in the type of assessment data they submit to senior management. Arts, design and technology and PE (within 'Other') make extensive use of teacher judgement. Maths departments are most frequently using tests that have been created outside the school. This is not surprising since it is a subject with great availability of external test providers and generally has fewer issues with curriculum-test alignment than English does.

Figure 14: Secondary – type of data deposit by subject taught



There is remarkable consistency in how different subjects are measuring 'attainment' at KS3, which suggests school-wide policies are in place. The exception is that maths and science are more likely to use more precise attainment data such as ranking in class/school, standardised score or percentage in test with students.

Current GCSE standard and predictions of future GCSE performance are central to reporting attainment throughout KS4, which is quite interesting given that students might be up to three years away from sitting their examinations.

Table 1: How are you measuring attainment/progress in your subject at KS3 and KS4

	English		Maths		Science		Humanities		Languages		Arts incl D&T		Other subject incl PE	
	KS3	KS4	KS3	KS4	KS3	KS4	KS3	KS4	KS3	KS4	KS3	KS4	KS3	KS4
Current GCSE standard of student (9-1)	35%	82%	24%	73%	27%	71%	32%	78%	27%	73%	26%	79%	25%	60%
Attainment converted to a likely future GCSE grade (9-1)	33%	41%	35%	51%	31%	54%	34%	49%	31%	47%	36%	39%	20%	42%
Student meeting expected (or above) standard or not	33%	19%	38%	16%	26%	23%	33%	17%	29%	17%	37%	20%	40%	15%
A standardised score (or similar)	7%	1%	7%	1%	14%	6%	7%	2%	6%	3%	5%	1%	4%	2%
Position or ranking in year/class	2%	2%	10%	6%	8%	3%	6%	2%	3%	4%	7%	1%	5%	
'Old' National Curriculum levels	1%		1%		5%		1%		2%		0%		3%	
Our school's grading scheme	25%	4%	20%	3%	26%	4%	24%	2%	33%	1%	33%	8%	22%	3%
A percentage achieved in a test	10%	7%	19%	12%	20%	20%	16%	11%	32%	9%	10%	9%	14%	12%
None of the above	3%	0%	3%	1%	1%		4%		2%	4%	3%	2%	15%	3%

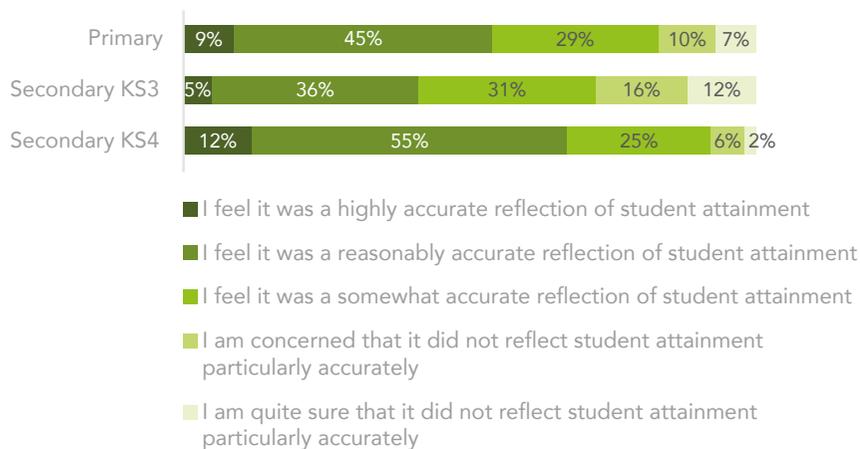
Survey date: 19/03/2019 and 23/03/2019 (N=1,816)



Perceptions of the accuracy of tracking data

We asked teachers how accurate they felt the data submitted to senior leadership teams is. Surprisingly, primary teachers have more faith in the tracking data they submit than do secondary teachers. This is despite the fact that their attainment information is generally teacher assessment, which is often felt to be less reliable than tests. Having said that, primary teachers do know their students very well so are well placed to pass judgement on their attainment. Of course, just because they perceive the judgements to be accurate, it doesn't mean that they necessarily are!

Figure 15: Think about the last attainment data you submitted centrally to your school. How much faith do you have in its accuracy?

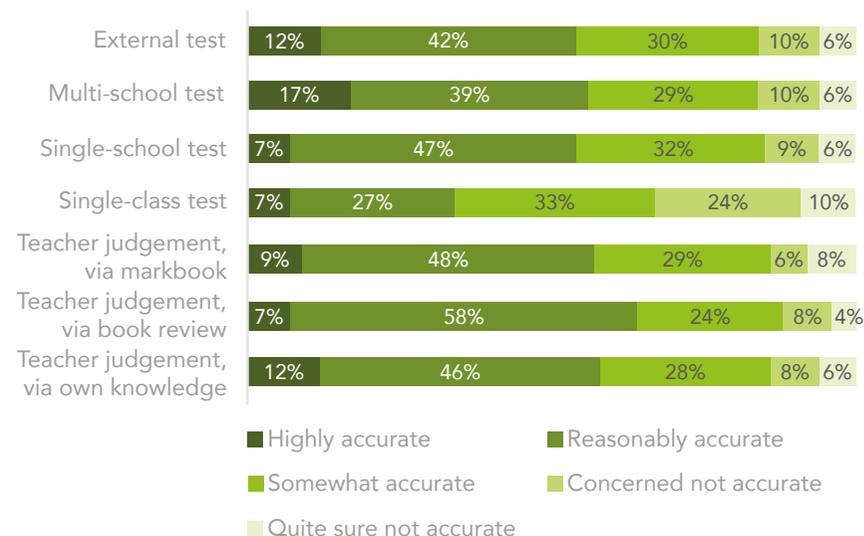


Survey date: 15/10/2018 and 04/01/2019 (N=2,569)

There were no significant differences in perception of tracking data accuracy across secondary subjects, or across schools according to their Ofsted ratings or demographic characteristics.

It is where teachers (whether primary or secondary) are relying on a single class test – one they've likely written themselves and don't share across classes – that they are least convinced of accuracy.

Figure 16: Perception of accuracy by type of test



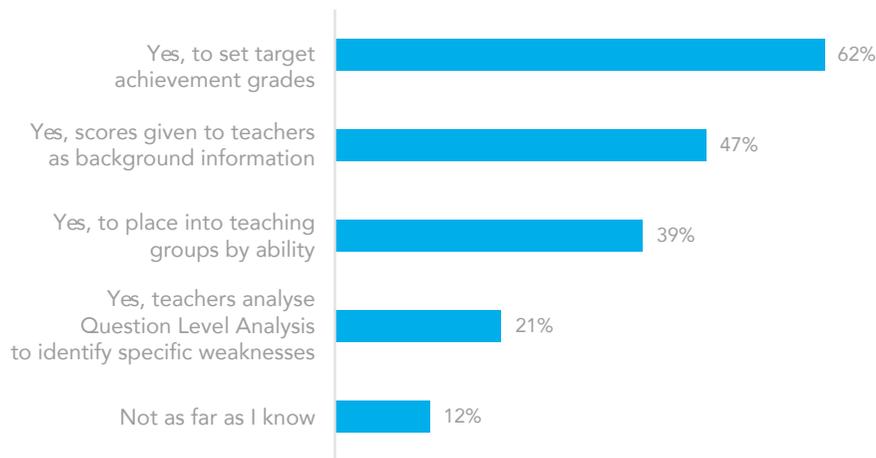
**How does prior
attainment information
shape school decisions?**

Schools are now judged on the progress that students make from a particular initial attainment point (at either KS1 or KS2) and so prior attainment information has become very important in the system.

We can see that student KS2 SATs results are used by secondary schools to help them learn about incoming pupils. Beyond background information, they are used to create target grades and to place students into teaching groups. Few teachers report that their school conducts deeper question-level analysis of the students' test papers.

The way that these KS2 results are used is quite consistent across different types of secondary schools.

Figure 17: Does your school use pupil KS2 SATs results in any way?

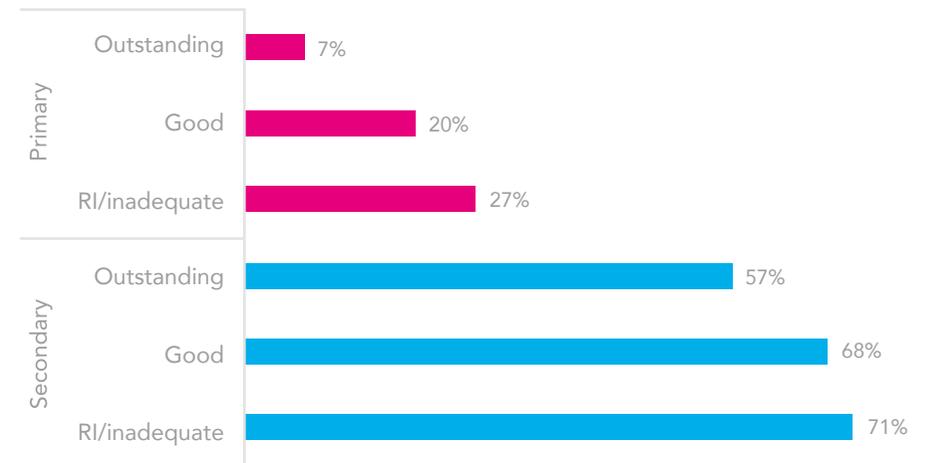


Survey date: 15/10/2018 and 04/01/2019 (N=2,569)

A 'flightpath' is an approach to showing how well a student is likely to perform at GCSE, and perhaps at intermediary points, given their KS2 scores. Their creation and visualisation varies considerably across schools, as does their use.

This question asked whether the school used 'flightpaths', regardless of whether the student was ever informed about them. They are extremely common in secondary schools (66%); less so in primary schools (20%). In both cases, they are most frequently used in RI/inadequate schools.

Figure 18: Does your school currently create 'flightpaths' for students at any stage (whether they communicate them to students or not)?



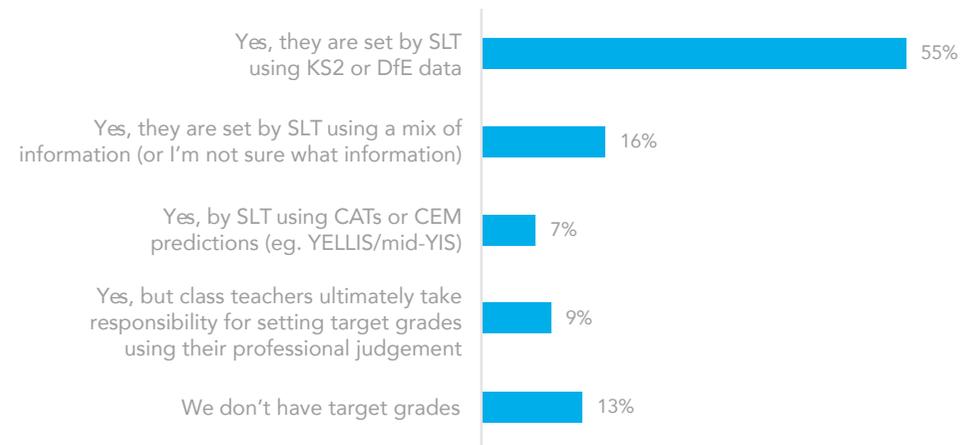
Survey date: 22/01/2019 (N=1,887)

How are predictions, targets and flightpaths created?

It is perhaps not surprising that the majority of secondary schools simply use KS2 results to create target grades, since Progress 8 means these targets will ultimately be how they will be held to account.

Schools judged by Ofsted as RI/inadequate are slightly more likely to set target grades using test data alone, rather than allowing class teachers room for professional judgement (just 3% allow this, versus 8% and 12% of outstanding and good schools, respectively).

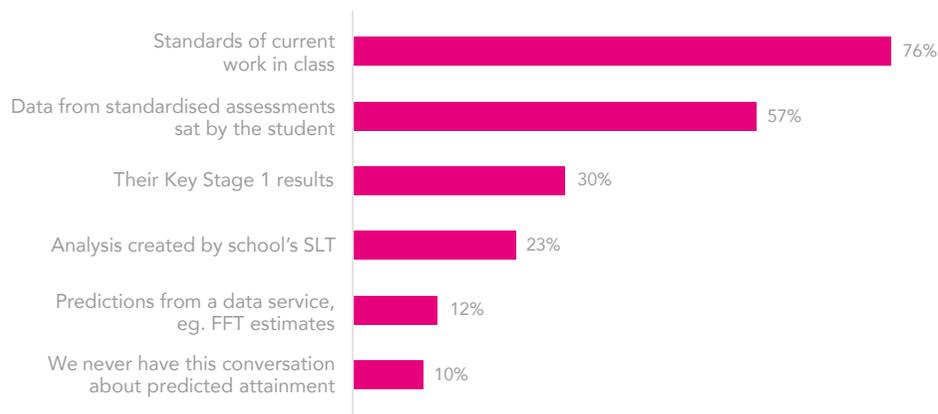
Figure 19: Target GCSE grades are predicted grades that some schools give to teachers for information, for performance management or to pass onto pupils. Are subject-specific target grades set in your main subject?



Survey date: 24/01/2019 (N=1,058)

Primary schools seem to be less tied to Key Stage prior attainment data in the setting of KS2 SATs predictions or targets.

Figure 20: If you do talk to parents and students about what they are likely to attain in their Key Stage 2 SATs, what information do you draw on to inform this prediction?



Survey date: 18/02/2019 (N=886)

We asked teachers whether they felt the targets that students were set are too challenging or easy. A significant group of secondary school teachers feel targets set are far too challenging. Almost no teachers feel the targets set are not challenging enough!

Language teachers are most likely to feel that target grades are too challenging. We know that GCSE grading difficulty for French and German is more severe than for most other subjects. If schools are not using sophisticated techniques to create target grades, then this explains why teachers have the most concerns about them.

The smaller subjects, including PE, along with art and technology also have greater concerns that target grades are "too challenging". For these subjects, the correlation between KS2 and GCSE can be quite low, so target grades are generally quite poor indicators of likely future performance.

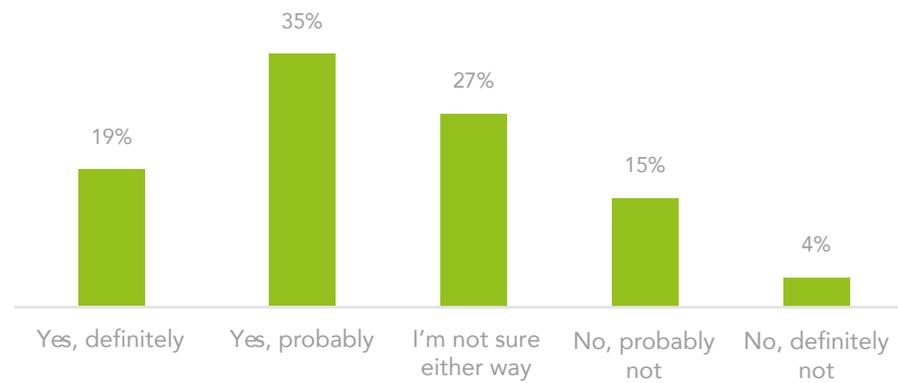
Figure 21: Proportion reporting "too challenging" when asked about the challenge of student predictions and targets:



Survey date: 19/02/2019 (N=2,470)

On the whole, teachers feel relatively positive about the idea of students having targets or goals. The question is whether it is simply the difficulty of existing targets that teachers are concerned about, or whether there are wider issues with the conflation of targets created as aspirational goals for the pupil with targets as accountability devices for teacher performance management.

Figure 22: If you ran your own school, would you give students aspirational goals or targets to help motivate them?



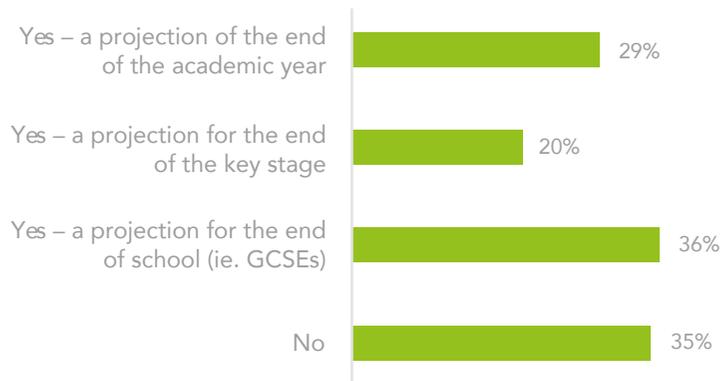
Survey date: 20/02/2019 (N=2,509)



**When are schools
communicating with
students about likely
future attainment?**

About 9-in-10 Key Stage 3 teachers tell us that the last report they sent home to parents contained a current grade or standard of work indicator. However, for two-thirds of students their parents will be sent a forecast of how well they are likely to do in the future too. Half of these predictions will include a projection of likely GCSE performance.

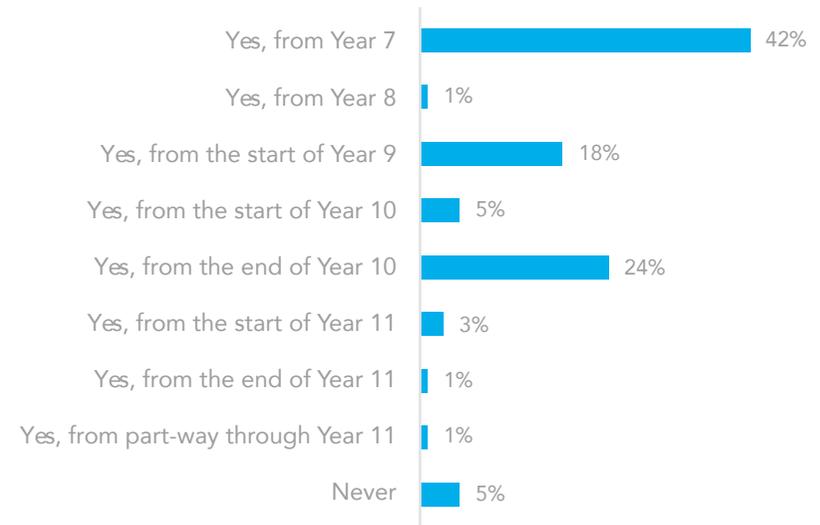
Figure 23: Are the parents of Key Stage 3 students provided with a teacher projection of how well their child is likely to do in the future?



Survey date: 03/04/2019 (N=1,907)

Indeed, 42% of secondary schools tell us that GCSE targets or predicted grades are shared with students from Year 7 onwards.

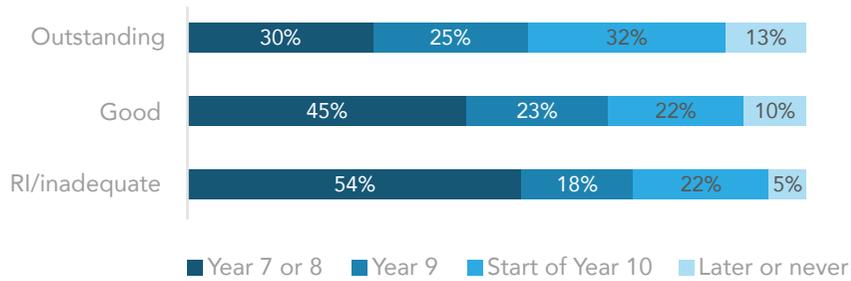
Figure 24: Are GCSE target or predicted grades (or ranges of grades) shared with students in the main subject you teach?



Survey date: 24/01/2019 (N=1,298)

This reporting of GCSE targets or predictions during KS3 is more prevalent in schools that have been judged as RI or inadequate.

Figure 25: Are GCSE target or predicted grades (or ranges of grades) shared with students in the main subject you teach?



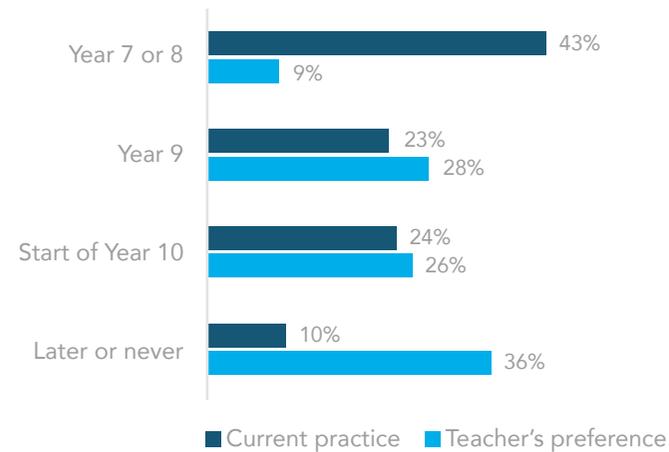
Proportion of senior leaders who believe target grades should be given in Year 7 or 8



Proportion of schools currently giving them out in Year 7 or 8

The majority of teachers would rather GCSE predictions were given to students much later than is current practice. For example, just one-in-ten teachers feel predicted grades should be given to Year 7 or 8 students, compared to 43% reporting it as current practice. Almost 4-in-10 teachers would prefer this information was given later than the start of Year 10.

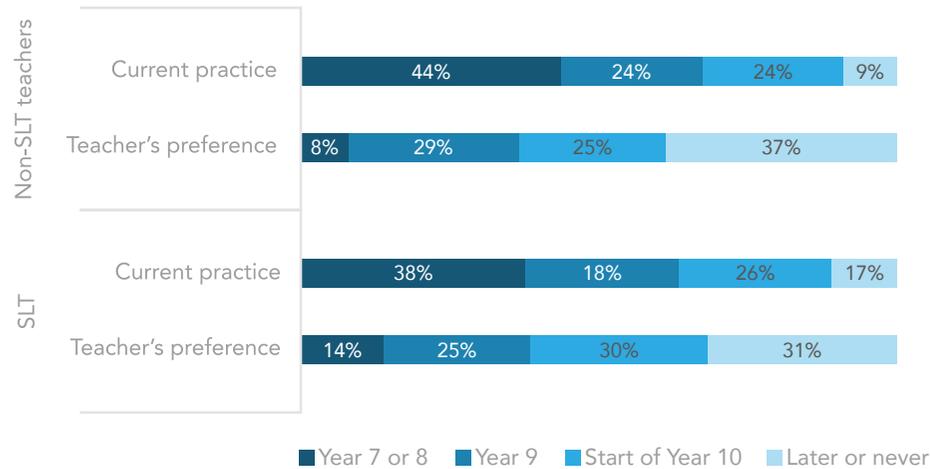
Figure 26: In your opinion, at what age should students first be given some indication of how well they are likely to perform in their GCSE examinations?



Survey date: 14/02/2019 (N=1,724)

It is interesting that many members of senior leadership teams hold the view that GCSE predictions should be delayed. 14% of senior leaders believe target grades should be given out in Year 7 or 8, compared to 38% of schools currently giving them out!

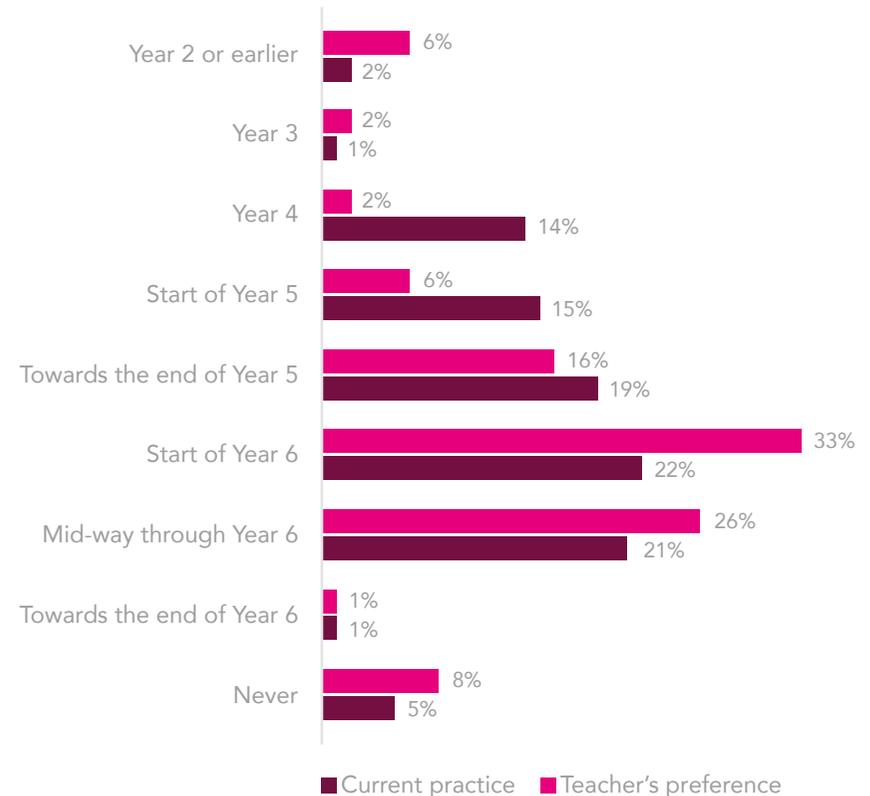
Figure 27: Opinion on when GCSE predictions should start



Primary school discussions about likely SATs performance come much later, on average, which is logical since they have no implications for student transitions. There is little difference in the timing of this conversation by school demographic profile or inspection rating.

Primary school teachers are much more aligned with current practice in their views on when this conversation should take place. If anything, they would prefer it to be slightly earlier than current practice.

Figure 28: In your opinion, at what age should parents and students first be given some indication of how well they are likely to perform in their Key Stage 2 SATs assessments?

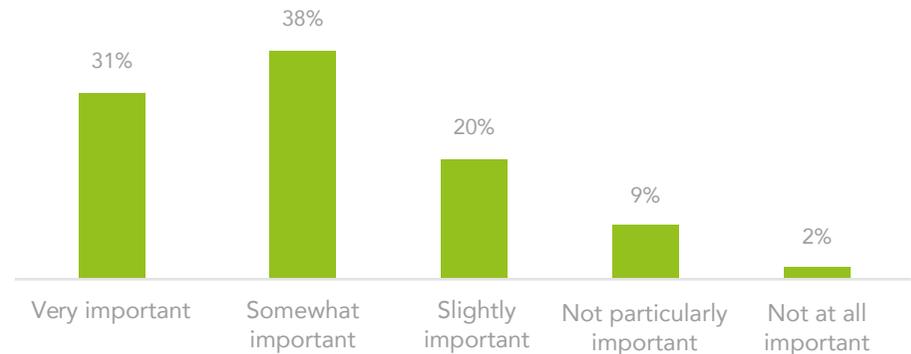


Survey date: 14/02/2019 (N=580)

Do teachers feel they have sufficient assessment data?

Nearly all teachers feel that the analysis of pupil assessment data is central to their work of improving educational outcomes for pupils.

Figure 29: In relation to *your* role within school, how important is the analysis of pupil assessment data to improving education outcomes for pupils?



Survey date: 10/02/2019 (N=2,315)

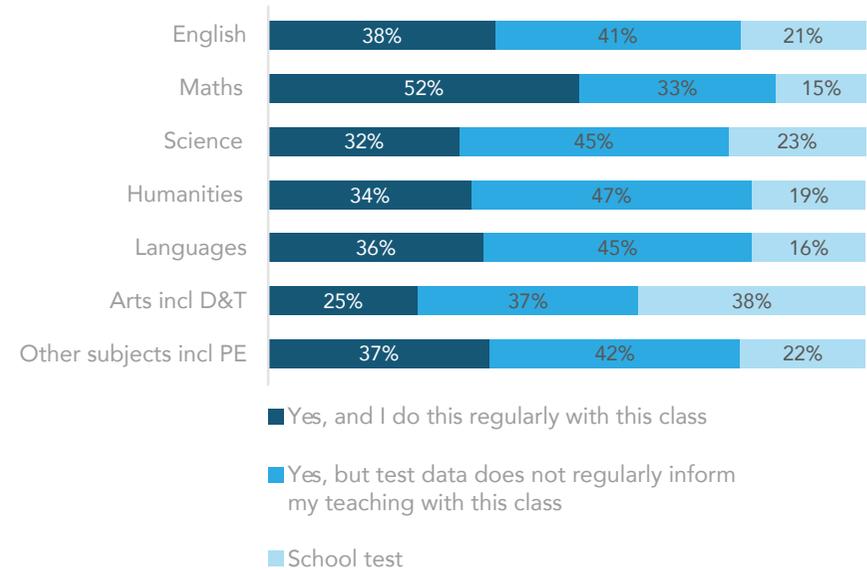
We asked KS3 teachers whether they use assessment data from a test to inform their teaching. In most subjects, a third of teachers report they do this regularly – the figure is much higher in maths. That said, for the majority of teachers, analysing test data does not play a regular role in the decisions they make in the classroom.

So, the contrast is quite interesting. On the one hand, the majority of teachers value the role of assessment data in helping them do their job. On the other hand, a minority seem to be routinely using test data to inform their classroom practice. One difficulty in analysing these issues is the language around ‘assessment’ – assessment can include teacher judgement of classwork, as well as more formal tests.

41%

Of KS3 teachers do not regularly use attainment data from a test, to inform the teaching of their current class

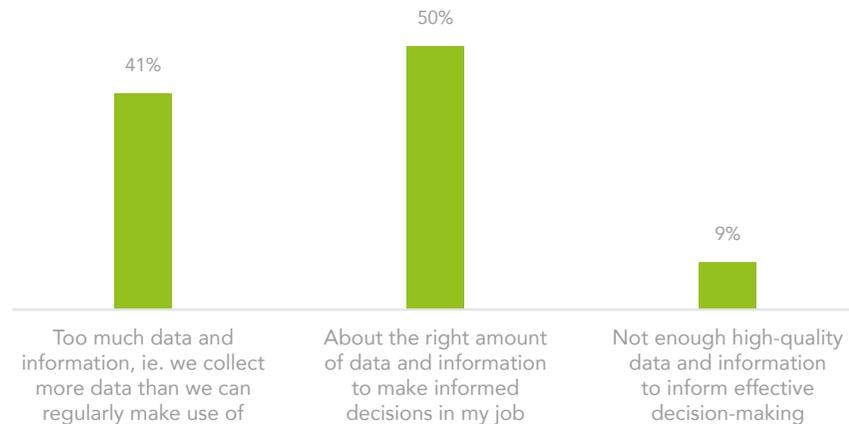
Figure 30: Think about a current class you teach (choose one towards the upper end of Key Stage 3 if possible). Have you successfully used attainment data from a test to inform decisions about how you teach them?



Survey date: 18/02/2019 (N=1,627)

While teachers clearly value assessment data, 41% of teachers feel their school is collecting more data than they are regularly able to make use of. By contrast, just 9% of teachers feel their school should collect more data.

Figure 31: Think about all the assessment data and other information you collate about pupils and use within your school. Do you feel that you have...



Survey date: 22/02/2019 (N=2,431)

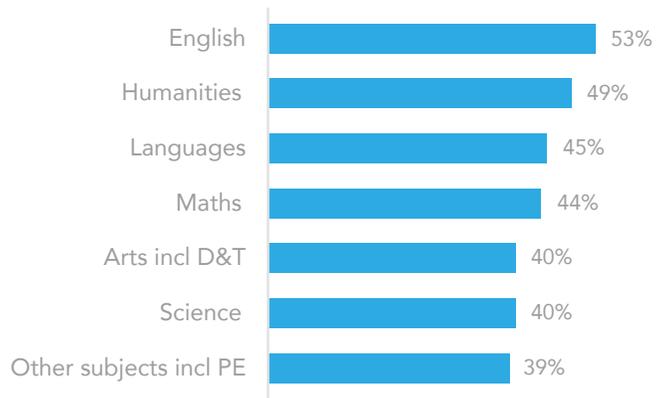
Teachers in schools judged to be requires improvement or inadequate by Ofsted seem to be more likely to declare that their school is collecting more data than they can use. Overall, secondary school teachers are more likely to feel their school is collecting too much data than primary school teachers.

Figure 32: Perception of data burden by phase and Ofsted rating



Those teaching subjects where the collection of valid assessment information is more straightforward – maths and science – are more positive about the collection of it in their school. English and humanities teachers are most likely to report too much data is requested in their school.

Figure 33: Proportion who feel they have more data than they can routinely make use of



41%

Of teachers who believe too much assessment data is collected

9%

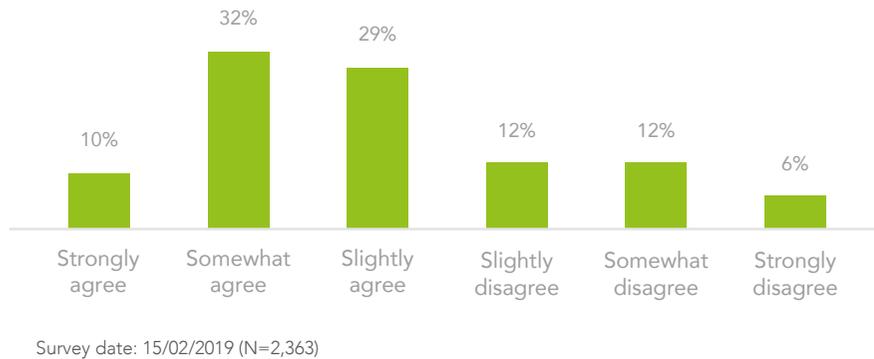
Of teachers who believe not enough high-quality data is collected



**Is data used in a supportive
way in schools?**

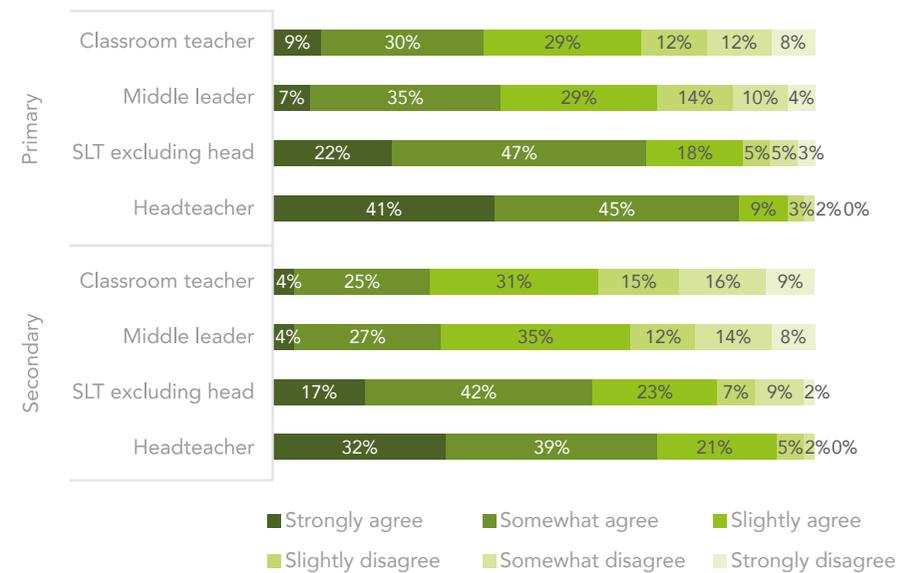
Our panel of teachers is reasonably positive about the way that data is used in their school – just 30% disagree that it is used in a constructive way to improve education outcomes.

Figure 34: School performance data is used in a positive, supportive and constructive way within my school to improve education outcomes



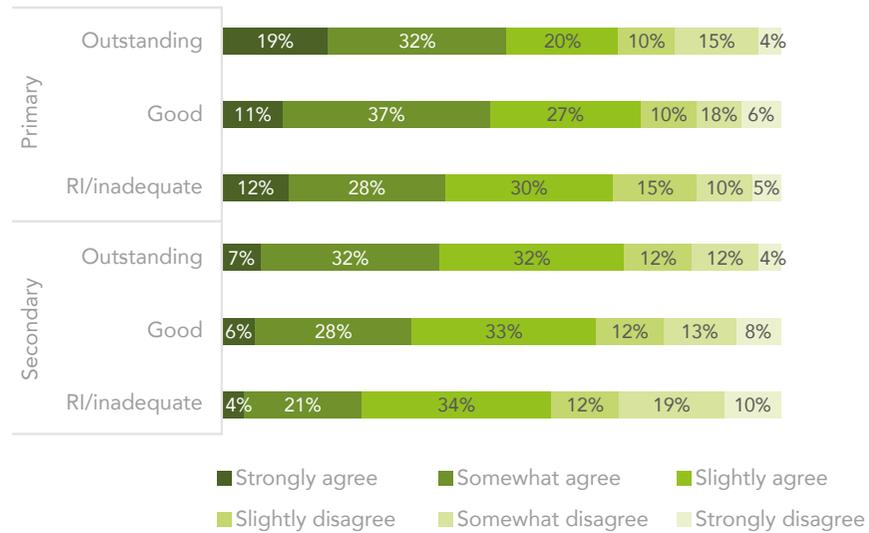
However, classroom teachers are far less positive than those in positions of responsibility. It is secondary classroom teachers that are most negative about its use.

Figure 35: School performance data is used in a positive, supportive and constructive way within my school to improve education outcomes



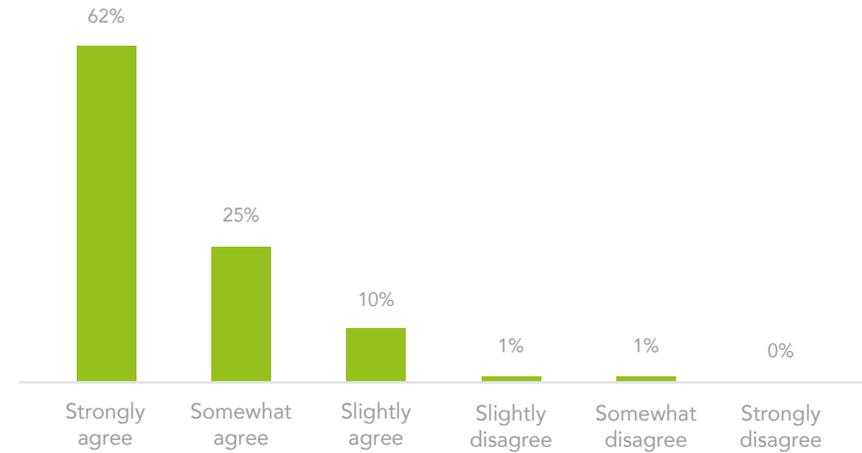
Secondary school teachers in schools judged as RI/inadequate are also likely to feel data is not used in a constructive manner in their school.

Figure 36: School performance data is used in a positive, supportive and constructive way within my school to improve education outcomes



Nearly all teachers would like to see all data analysis on pupils made available to all staff to support teaching and learning in the school.

Figure 37: All pupil attainment analysis held by senior management should be made available to classroom teachers to improve their teaching and learning



Survey date: 14/02/2019 (N=2,304)

Most senior leaders feel that all analysis is made available to classroom teachers, though fewer of those classroom teachers believe it is!

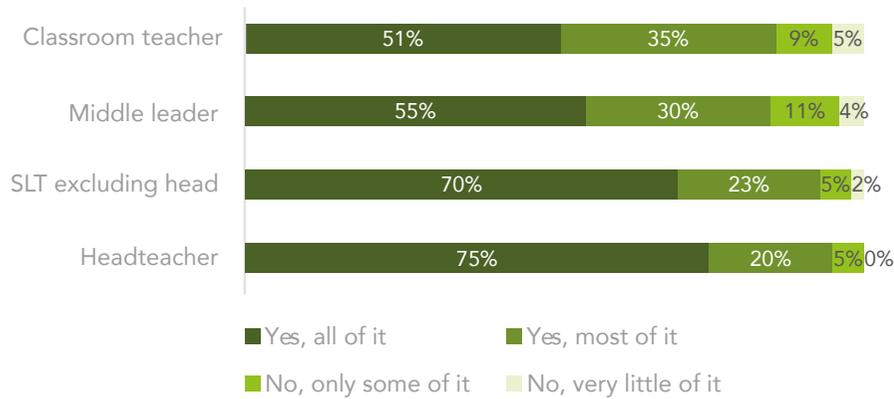
51%

Of teachers say pupil attainment analysis held by SMT is made available to them

72%

Of SMTs say pupil attainment analysis held by them is made available to teachers

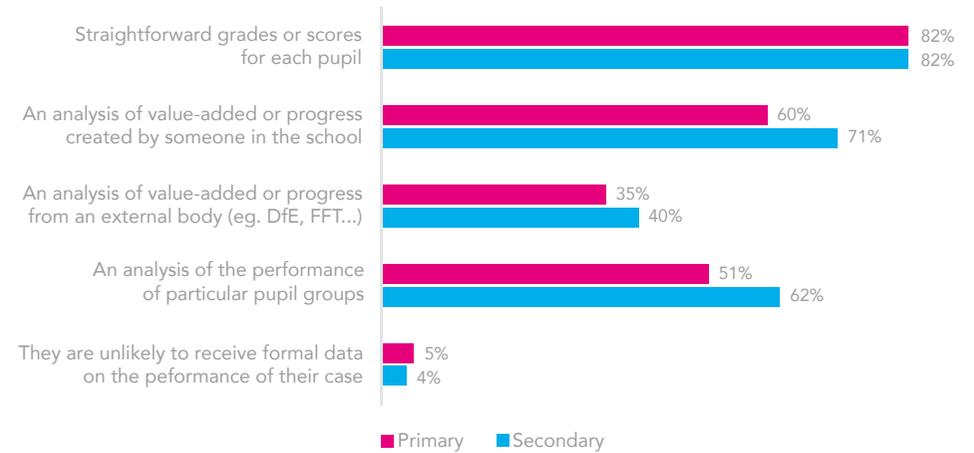
Figure 38: As far as you know, is all pupil attainment analysis held by senior management made available to classroom teachers to improve their teaching and learning?



Survey date: 15/03/2019 (N=2,710)

However, when we ask about a specific incidence of data availability, about 3-in-10 teachers say their management team do not provide them with full analysis – including value-added or progress data – of how their previous year classes performed in government tests.

Figure 39: What information is given to teachers following government assessments?



Survey date: 21/02/2019 (N=2,412)

3 in 10

teachers say their management team do not provide them with full analysis of how their previous year classes performed in government tests.

FFT Education Ltd

1st Floor
79 Eastgate
Cowbridge
CF71 7AA

01446 776262
hello@fft.org.uk
@FFTEdu

FFT Education Datalab

1st Floor
11 Tufton Street
London
SW1P 3QB

020 3761 6959
educationdatalab@fft.org.uk
@FFTEduDatalab

