

ork grades that are not at least des higher than the pupils' overall 1 attainment."

gh found that 70 per cent of pupils at pol achieved A\*-C grades in science ork, but this would have dropped to ent without the cheating.

this September, controlled practical ents will no longer contribute to 'A-level science grades, partly because about overgenerous marking.

Singh, a physicist and former Ofsted or, said that the controversial move by vatchdog Ofqual was a step too far.

ework can be very helpful for students in't do particularly well on timed ons or tests," he argued. So rather apping it from assessments, it should closely monitored.

o called for Ofsted to carry out more specialist inspections, to help root out is that were affecting lessons and to disenchanted staff.

onal Audit Office (NAO) report earlier ir highlighted teaching shortages in subjects, which are also recognised government as shortage occupations igration purposes.

g rates among science teachers are per cent above average for men and ent above average for women, when ed with the rest of the workforce, the port found (bit.ly/reportNAO).

epartment for Education was contacted ment. 9

## Retraining course aims to multiply maths teachers

Innovative ways must be found to solve the shortage of qualified staff, argues multi-academy trust

HELEN WARD

THE ANSWER to the country's maths teacher shortage lies in retraining teachers from other subjects, according to a multi-academy trust.

The Dean Trust, a chain in the north-west of England, is launching a new online course to offer in-depth training in maths for teachers across the country.

Taking between 250 and 400 hours to complete, it aims to provide the subject knowledge and pedagogy necessary to teach Shanghaistyle "mastery" maths to secondary pupils.

Tarun Kapur, the trust's chief executive, said: "It is not a substitute for maths teachers. It is creating capacity in the system.

"A lot of money is being pumped into 'How do we improve the situation in maths?' But it's not improving. We know that, because we're on the ground. Maths teachers still don't exist.

"A good maths graduate can earn £30,000 in their first job; they can't in teaching. I think we'll be on the back foot for the next few years."

Mr Kapur argued that shortages in the subject were now so ingrained that a longer-term solution of retraining teachers was needed. "We've taken a practical approach," he said. "We've thought "This is the problem. What can we do?" And we're going to do this."

The course includes 2,500 assessments, and 1,500 animated videos explaining mathematical concepts, which can be used for teaching as well as for a training resource.

## Clear need

Sue Pope, of the Association of Teachers of Mathematics, said that the need to retrain existing teachers in the subject was clear. "There is a massive shortage of maths teachers," she said. "The government has put all its energy into recruitment and not into retention.

"Part of the problem is that in the first year of teaching, expectations are ridiculously

high. If you have good people saying they want to be mathematics teachers, then investing in those people is really worth doing – we have got to facilitate that inspiration."

The latest Department for Education statistics reveal that last year 26.3 per cent of maths teachers did not have a relevant degree, up from 24.2 per cent in 2014 (see box, below).

Meanwhile, demand for maths teachers is increasing because of the introduction of compulsory resits for those who fail to get at least a C in GCSE maths aged 16.

The bigger reformed maths GCSE, which requires more teaching time, and the intro-

'We are fishing in a pool that is not very full of fish' duction of the core maths qualification are also driving demand.

The government aims to train 15,000 non-specialists as either maths or physics teachers by 2020 through its teacher subject specialism training scheme.

As part of the initiative, the Dean Trust already offers a 12-week twilight course, which enables teachers to attend after work.

But Mr Kapur said that his new online course would give teachers more opportunity to learn in-depth and tackle the shortages that have affected the trust's own schools.

Ashton on Mersey School, one of its four secondaries, has just one secondary maths trainee signed up for its school-centred initial teacher training (Scitt) this year, rather than the 10 expected.

Mr Kapur said: "We are fishing in a pool that is not very full of fish and there are a lot of people with rods in there."

@teshelen

For more on teacher recruitment and retention, turn to pages 18-19

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