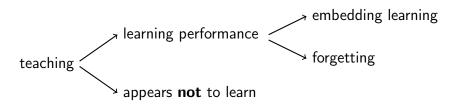
## Description of timely practice

timely practice is a tool for teachers of low attaining maths students<sup>1</sup>. The timely practice app creates personalised pdf assignments of mixed practice questions which schedule retrieval practice. The optimally scheduled practice embeds this learning over a number of weeks. timely practice's aim is that almost all teaching becomes embedded learning, which is demonstrated by students consistently, independently and accurately answering questions on that learning. timely practice makes assessment for learning, feedback, mastery learning and retrieval practice quick and easy for the teacher to integrate into their everyday planning, teaching and assessment.



### The big picture

The national trend is that lower attaining students fall further and further behind their peers during their schooling. (Ofsted 2012)

The Warnock report (Warnock 1978) looked at what the teaching of the "up to one in five of students" who have difficulty learning should be like. It led to an acceptance that teachers and schools should teach **within a lesson** to better suit all students. I still see a similar proportion of students not learning effectively because although we teach **within a lesson** to better suit students we have not changed our schemes of learning and curriculum to teach **over an academic year** to best suit all our students.

The report Mathematics: Made to Measure (Ofsted 2012) requested schools to review how topics that students struggle to learn "were taught in the first place and how that teaching and/or the curriculum might be improved so that pupils in the future do not struggle with them."

### The timely practice solution

timely practice uses the following changes, based on robust research<sup>2</sup>, to the spacing of teaching, practise and feedback to dramatically improve attainment of the lowest quartile.

	regular maths lessons	timely practice lessons
path through scheme of learning	Units of themed topics  Easy  Hard	Units of themed topics  Easy  Hard
practice in lesson	the work taught in the lesson	any of the topics learned to date questions chosen to embed learning
after feedback	rarely practise more questions	practise another question soon

<sup>&</sup>lt;sup>1</sup> we aim our product at students who "would probably not get a grade 4 or above at GCSE"

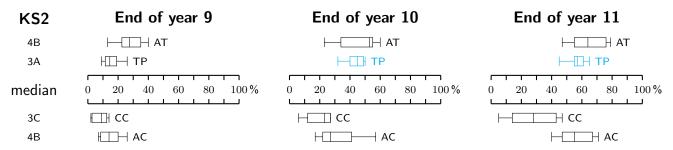
<sup>&</sup>lt;sup>2</sup> see the timely practice website for details on this research

# Results and analysis of a 3 year timely practice trial

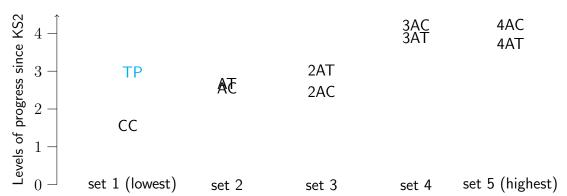
For two academic years, two maths classes used timely practice for almost every lesson of their 2 year GCSE course. Each class was one of the lowest attaining two maths sets in their year.

	the timely practice "half" of the year	the control "half" of the year
Lowest attaining set	TP (timely practice)	CC (control class)
The set above	AT (above timely practice)	AC (above control)

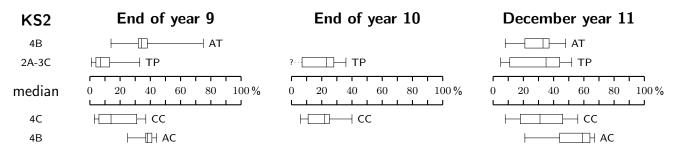
#### 2017-2019 classes



The average "number of levels" increase since KS2 are shown on a scatter graph below.



### 2018 to 2020 classes



In both cohorts TP closes the gap with the set above, AT

### The big picture

**If** it is possible to significantly increase the proportion of learning that low attaining maths learners retain, then I believe that social justice says that we **should** make these changes.

**Interested?** Why not join our free 10 or 21 week trial to:

- find the proportion of learning that your low attaining maths students' are forgetting, and
- see if with timely practice they can retain significantly more?