

Connecting Your School Through Digital Leadership

Will Hall - Curriculum Lead



Issues in Education



One-size-fits-all model of delivery is inadequate

260,000 British secondary school children are in underperforming schools [1]

Individuals learn uniquely, but these needs are impossible to meet in a classroom of 22+ students

[1] TES Teacher Workload survey



Disadvantage gap leaves vulnerable children behind

27.5% fewer disadvantaged pupils achieved good GCSEs, compared with all other pupils [2]

This is larger in the UK than in most other OECD countries [3]

[2] Department for Education's Briefing for School Leaders (2015)
[3] Department for Education's Briefing for School Leaders (2015)



Teacher workload is unsustainable

As many as **75%** of teachers think of quitting due to unmanageable workloads [4]

Up to **60%** of teachers time is spent on administrative tasks [4]

[4] TES Teacher Workload survey

Data collection

56% of respondents to the DfE Workload Challenge survey said data management causes unnecessary workload.



-Report of the Independent Teacher Workload Review Group

Purpose?

Process?

Validity?

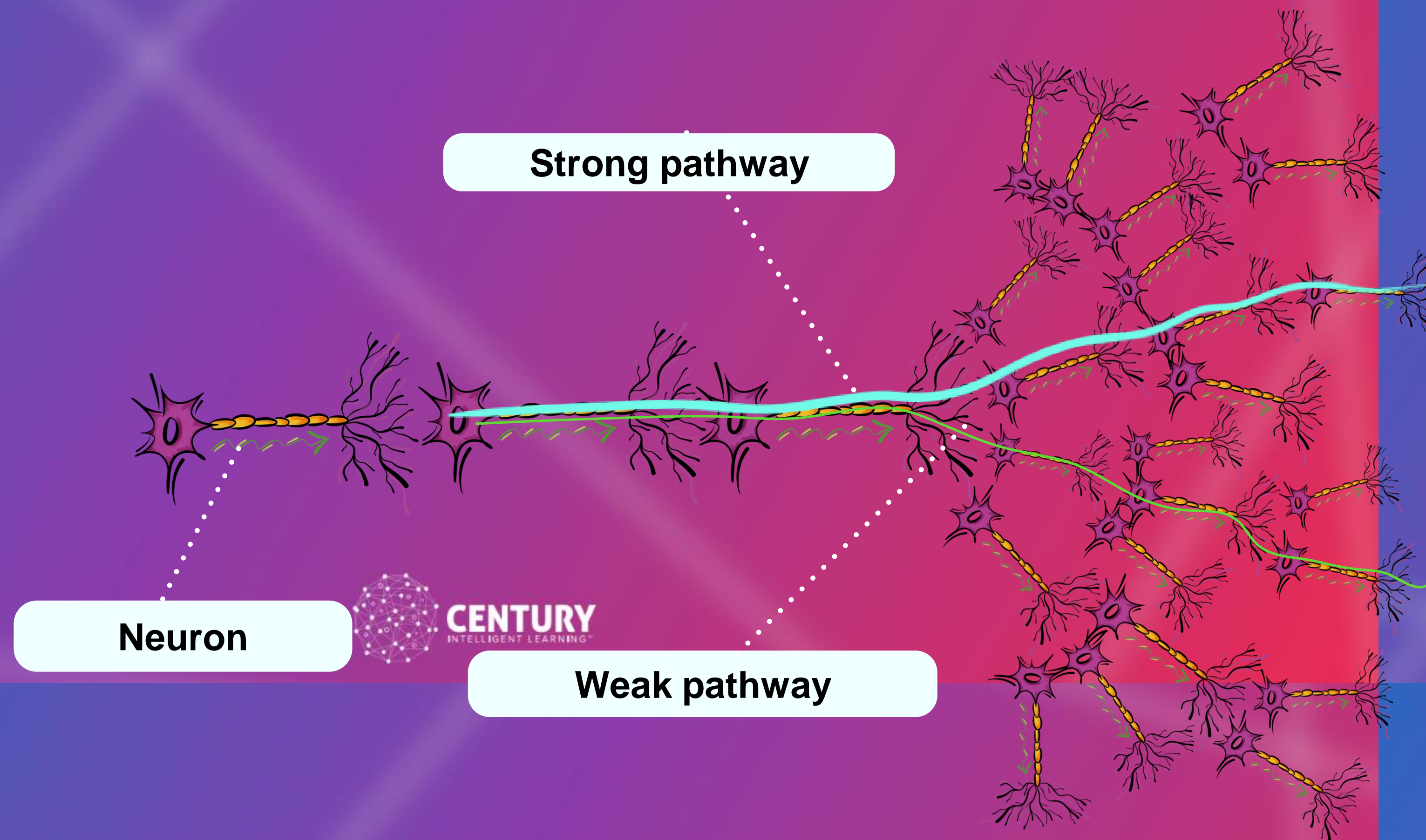
Neuroscience



**Artificial
Intelligence**

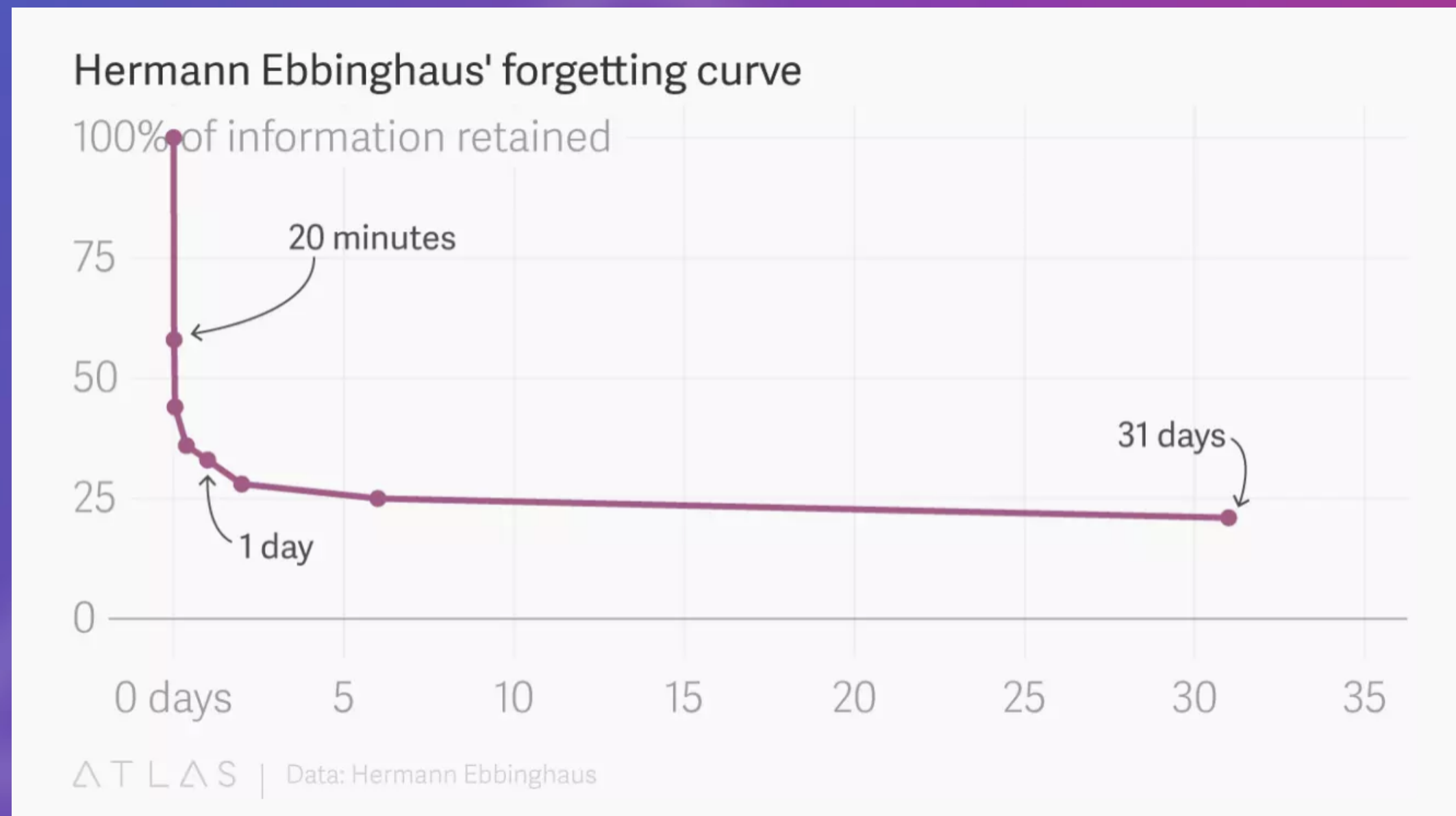
Learning in the Brain

short-term vs long-term memory

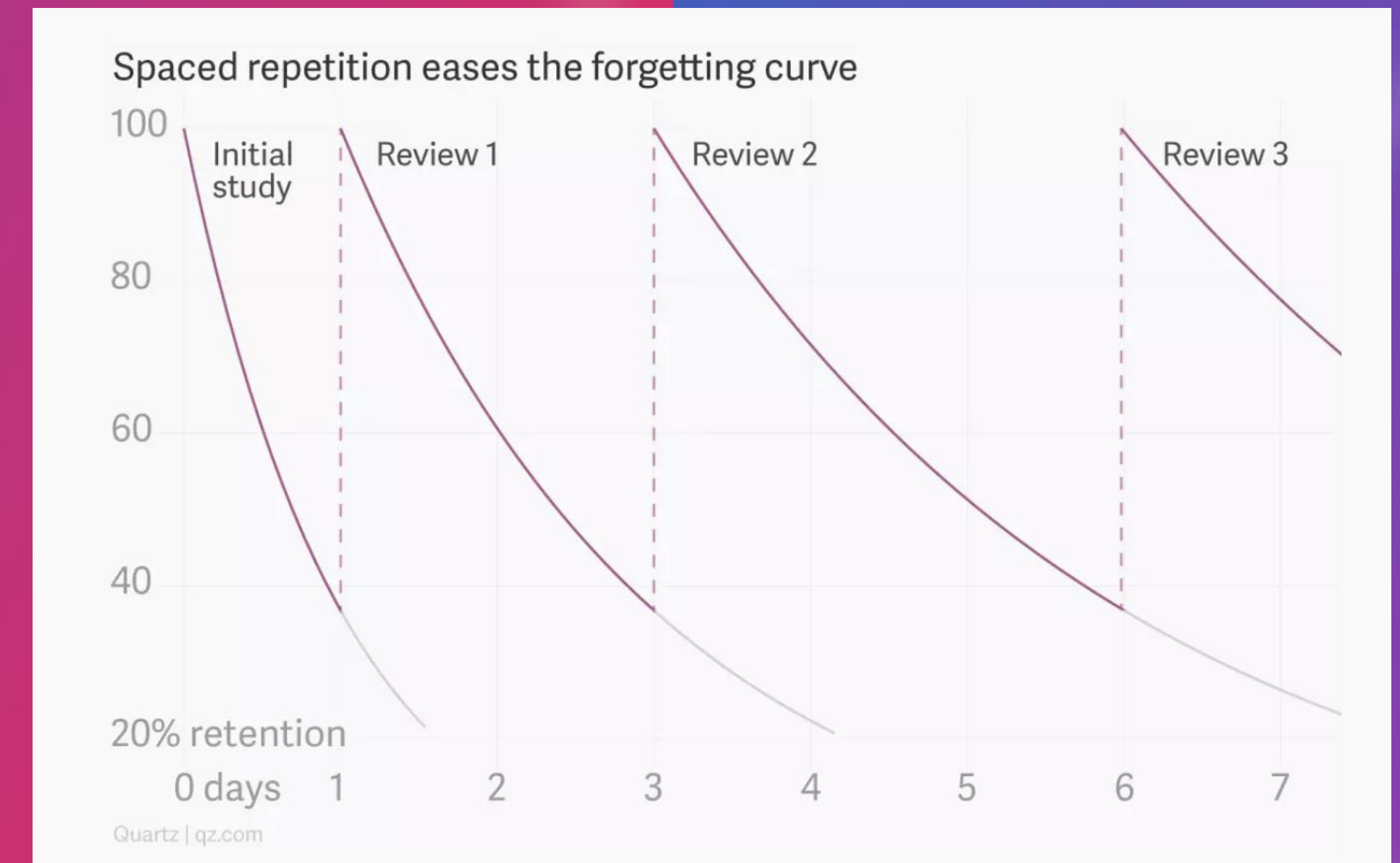


What Tech can do better

Forgetting Curve

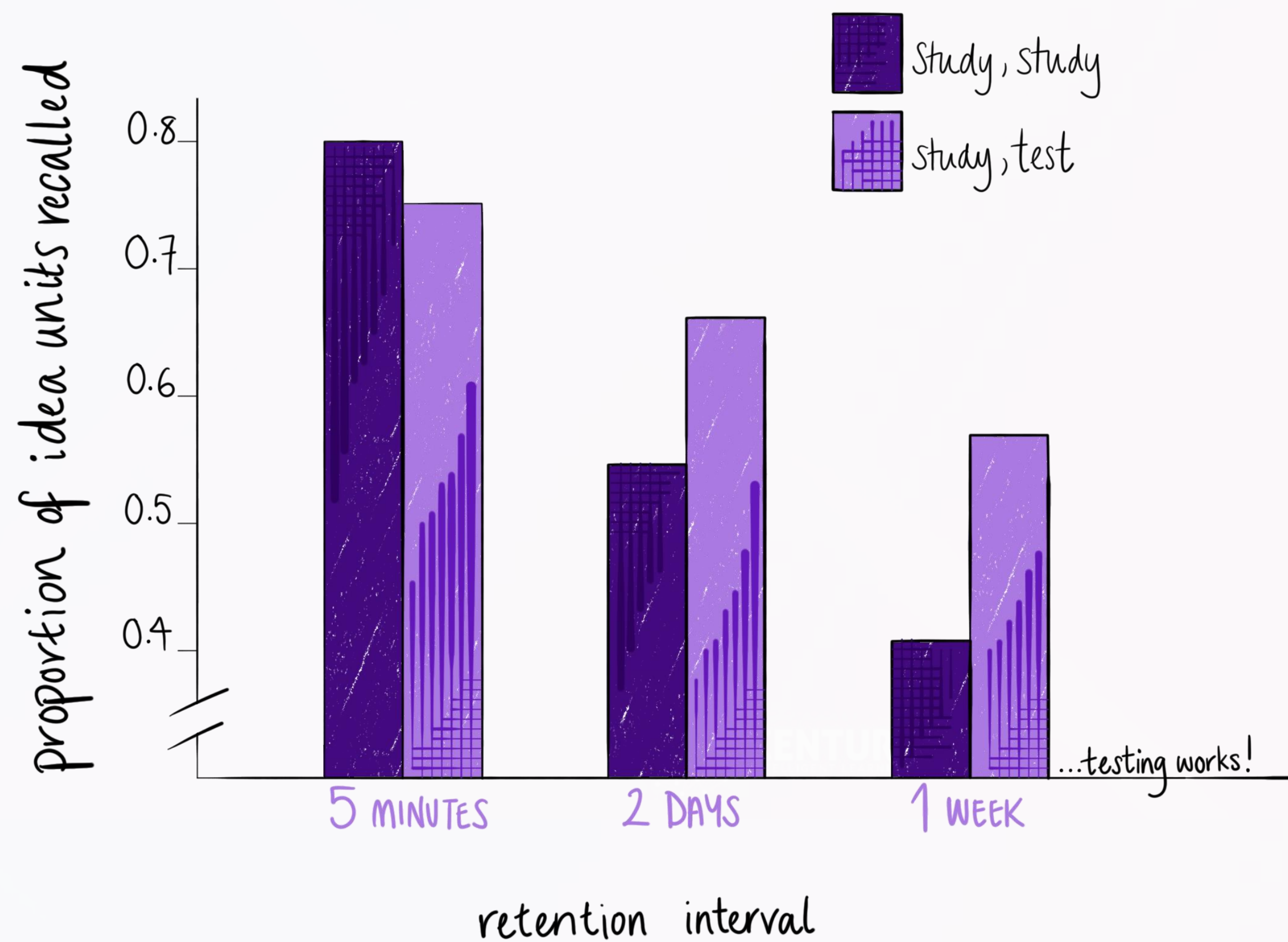


Active Retrieval



Just because you've taught it doesn't mean they've learnt it

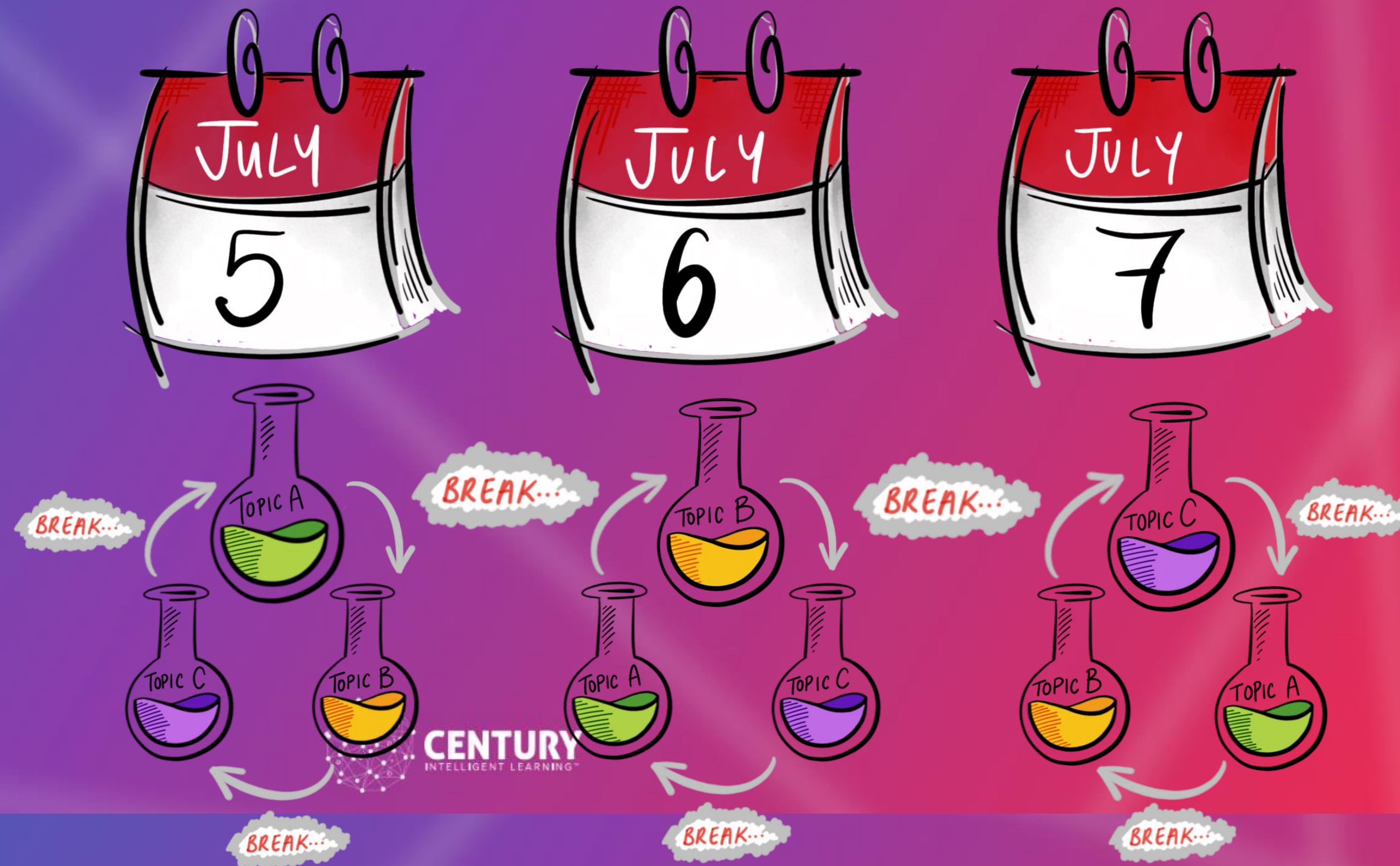
Retrieval Practice



Actively trying to take information out, as opposed to repeatedly trying to put information in...

Spaced and Interleaved Learning

• Education Endowment Foundation (EEF)



*five-minute micro-gaps
and day long macro-gaps
between topics*

Cramming = long-term potentiation

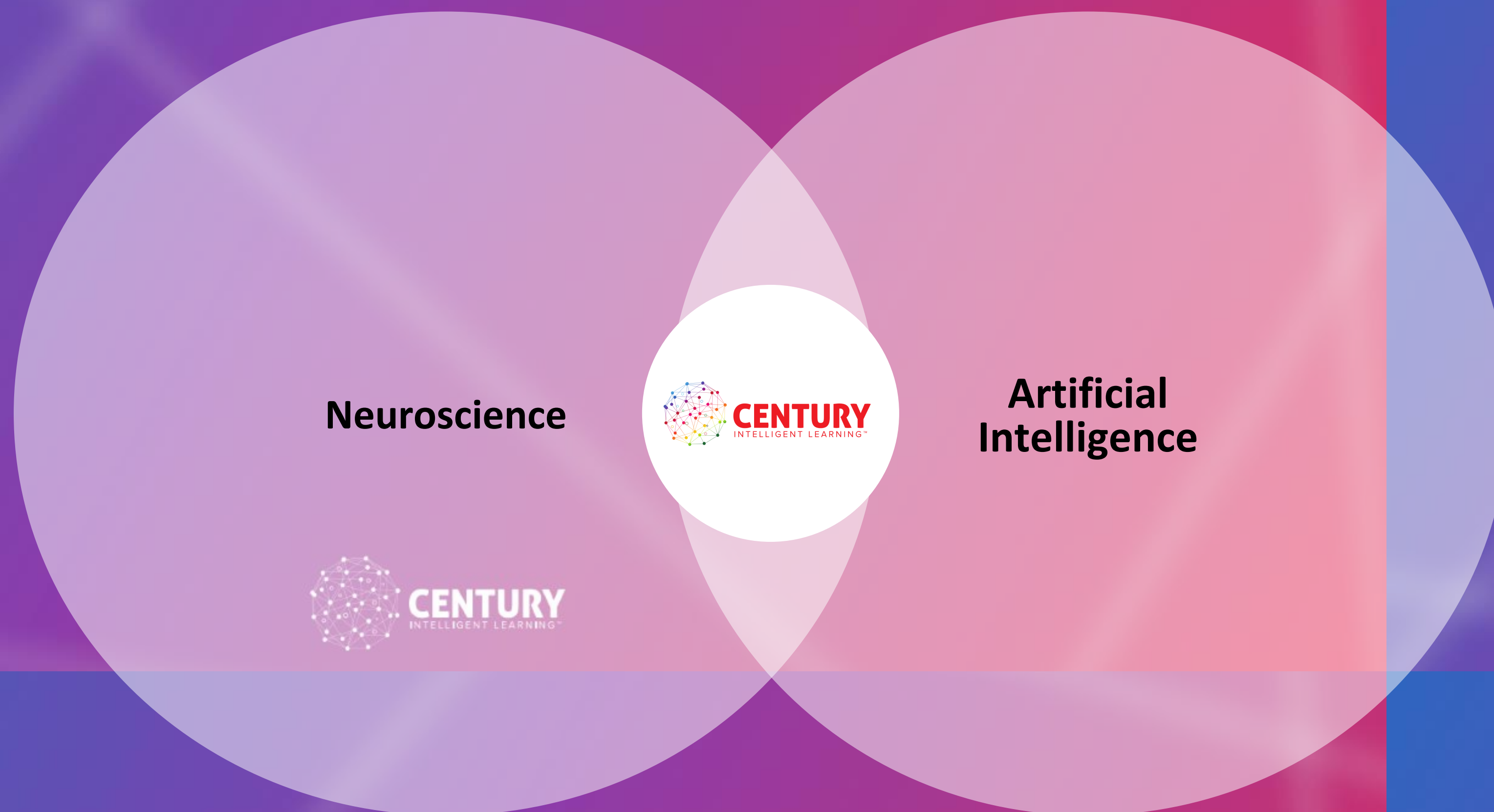
What Tech can do better

Differentiation

- 30 pupils
- Grade 5 - 9
- 1 hour



The most **intelligent learning technology** in the world
proven to increase outcomes and transform teaching



CENTURY automates routine administrative tasks, reducing teacher workload



Saving teachers 6 hours per week

Teachers across different subjects cited CENTURY as saving them on average 6 hours per week, invaluable when the average working week for a teacher is 60 hours.





Amelia's Recommended Path ?



Personalised Learning

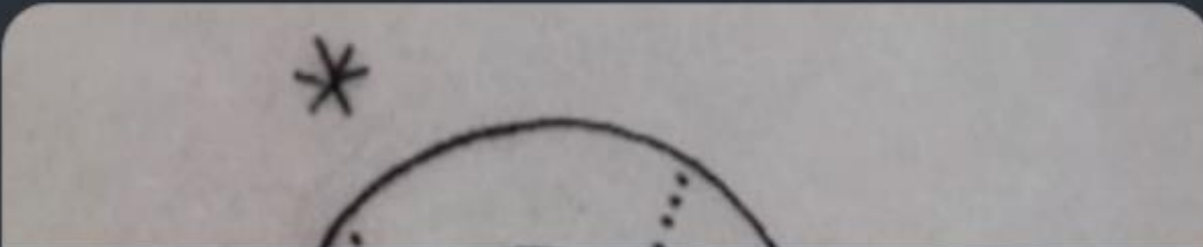
Assignments

Subject	Material	Due
English Literature An Inspector Calls	Essay	11 Oct
English Language Homophones	1 Nugget	31 Aug

Question of the Day

True or False?

The first living being to orbit the Earth was a dog.



send us feedback

I am feeling surprised

Michael's Recommended Path

Here are the nuggets that CENTURY thinks you should study next based on how you learn best and what you've already studied:



Diagnostic Assessment

Answer these questions so we know your strengths and areas for improvement.



Set by teacher

Your teacher has chosen these nuggets as important for you to study.



Focus for Improvement


This is a topic CENTURY thinks you can improve on.



Memory Boost

It's time to revisit these nuggets to make sure you don't forget them.


Michael's Recommended Path ?



Mathematics

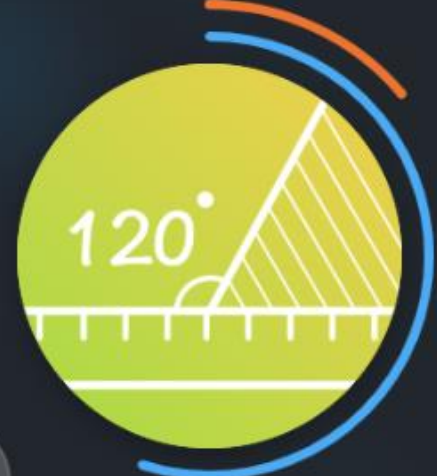
Constructing Venn Diagrams 2

START



Mathematics

Mean 3



Mathematics

Mean from Grouped Frequency Table 1

SUBJECTS

- Biology
- CENTURY
- Chemistry
- English Language
- English Literature
- Mathematics
- Physics
- Science

CANCEL

APPLY

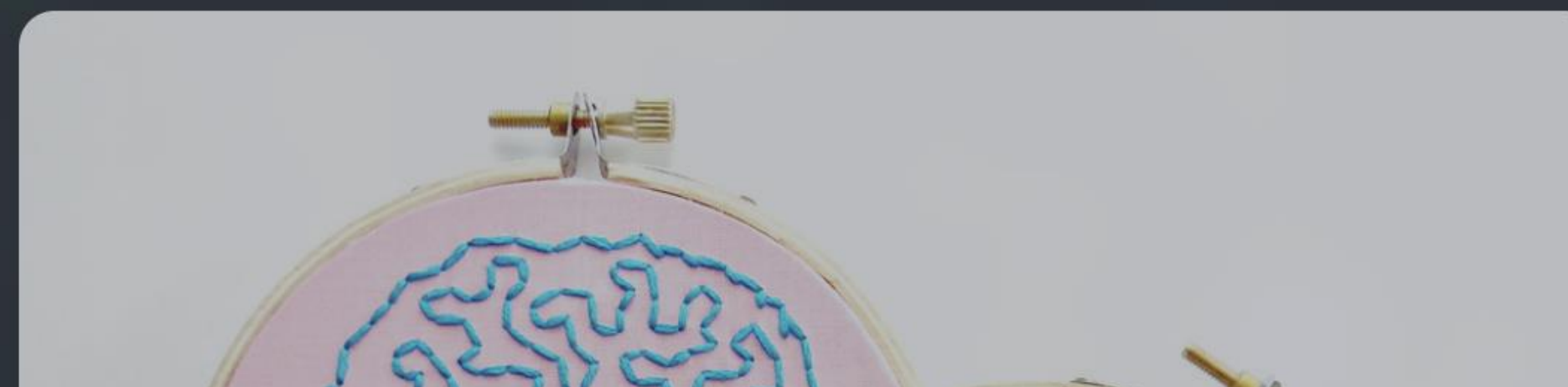
Assignments

Subject	Material	Due
Science	1 Nugget	14 Mar
Science		
Science	2 Nuggets	14 Mar
microscopy homework		
Mathematics	Task	28 Feb
Year 9 Graphs homework		

Question of the Day

True or False?

Due to noticeable differences, two types of brains were recognised by scientists: 'male brain' and a 'female brain'.



Growth Mindset

You're on the right track

It looks like you haven't mastered this yet... but it won't be long. Use what you've learnt to help you next time.



SCORE
50 %

COMPLETION
81 %

5 / 10 CORRECT

5 / 10 MARKS

0h 2m 25s

13/03/2019

How would you rate the content?



How do you feel?

I feel **disappointed**

Try Again

Next Nugget:

Constructing Venn Diagrams
2

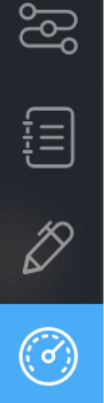
Learner Agency

I am feeling proud

Data for all stakeholders

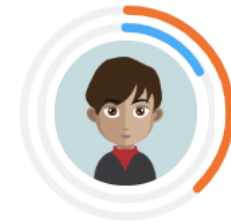
Purpose • Process • Validity





My Dashboard

Overview Assignments



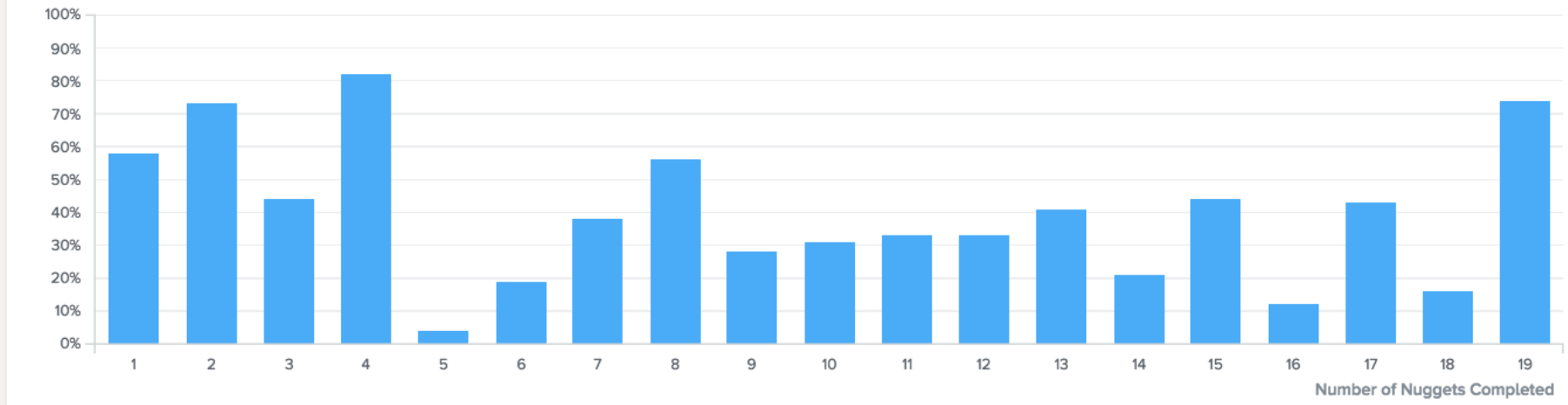
Michael Gazzaniga

Biology: GCSE (Higher)

19
NUGGETS COMPLETED

38%
AVERAGE SCORE

Average Score in Each Nugget



My Skills

- 44% 1: Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures.
- 34% 2: Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures.
- 20% 3: Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedures.

My Strengths

- Orders of Magnitude
- Specialised Cells
- Prokaryotic Cells
- Cell Division: Mitosis
- Factors Affecting Rate of Enzyme Activities

My Areas for Improvement

- Aerobic & Anaerobic Respiration
- Darwin, Wallace & Speciation
- The Nervous System
- Osmosis in Potatoes: Analysis & Conclusion
- Eukaryotic Cells

Stretch Myself

- Stem Cells in Medicine
- Respiration: Effects of Exercise
- Enzymes: Digestion
- Cells, Tissues and Organs
- Transport in Cells: Diffusion

Focus On To Improve

- Biological Molecules
- Evidence for Evolution
- The Water Cycle
- Osmosis in Potatoes: Method & Data Collection

My Tracker

NUGGET NAME	LAST ATTEMPT	LAST COMPLETION	LAST SCORE	BEST SCORE
Cell Division: Mitosis	21/06/2018	97%	56%	56%
Cell Division: Cancer	20/06/2018	100%	38%	38%
Cell Division: Meiosis	22/06/2018	100%	28%	28%
Cell Differentiation & Stem Cells	22/06/2018	100%	31%	31%
Stem Cells in Medicine				
Biological Molecules	04/07/2018	94%	41%	41%
Aerobic & Anaerobic Respiration				
Respiration: Effects of Exercise				
Enzyme Action	13/07/2018	100%	21%	21%
Factors Affecting Rate of Enzyme Activities	03/09/2018	67%	44%	44%
Enzymes: Digestion				
Cells, Tissues and Organs				
Transport in Cells: Diffusion				
Transport in Cells: Osmosis	08/11/2018	88%	16%	16%
Transport in Cells: Active Transport				



I am feeling proud 😊





School Dashboard

DEPARTMENTS



English

Average Score
67%

Time per Pupil
10h 22w

Attempts per Pupil
89

Questions per Pupil
625



Mathematics

Average Score
52%

Time per Pupil
3h 59m

Attempts per Pupil
78

Questions per Pupil
392



Sciences

Average Score
65%

Time per Pupil
12h 38m

Attempts per Pupil
173

Questions per Pupil
1043

ALL SUBJECTS

Sort by: **A to Z** ▼

Biology

Average Score
74%

Questions per Pupil
165

Time per Pupil
2h 38m

Business

Average Score
69%

Questions per Pupil
201

Time per Pupil
1h 30m

CENTURY

Average Score
87%

Questions per Pupil
318

Time per Pupil
2h 44m

Chemistry

Average Score
53%

Questions per Pupil
146

Time per Pupil
2h 14m

Cloud Computing

Average Score
78%

Questions per Pupil
75

Time per Pupil
1h 3m

Digital Skills

Average Score
92%

Questions per Pupil
58

Time per Pupil
53m 26s

English

Average Score
67%

Questions per Pupil
174

Time per Pupil
3h 41m

English Language

Average Score
62%

Questions per Pupil
256

Time per Pupil
3h 18m

English Literature

Average Score
71%

Questions per Pupil
195

Time per Pupil
3h 23m

French

Average Score
57%

Questions per Pupil
150

Time per Pupil
1h 23m

Functional Skills

Average Score
62%

Questions per Pupil
357

Time per Pupil
4h 38m

Geography

Average Score
68%

Questions per Pupil
57

Time per Pupil
1h 29m



AVERAGE SCORE

67%

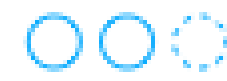
Number of Students

3832

Active Students

3108

NUGGETS COMPLETED



48 per pupil
184 635 total

TOTAL OF ATTEMPTS



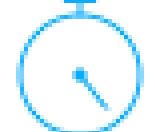
115 per pupil
440 291 total

QUESTIONS ANSWERED



460 per pupil
1 762 638 total

TOTAL TIME STUDIED



5h 21m per pupil
2y 17w total

ACTIONS



Action Advised

2 teachers haven't logged in for 2 weeks or more. [See teachers](#)



Highest Usage!

98% of students logged in yesterday.



Concerning data

8EL1 class average score has dropped by 8%.

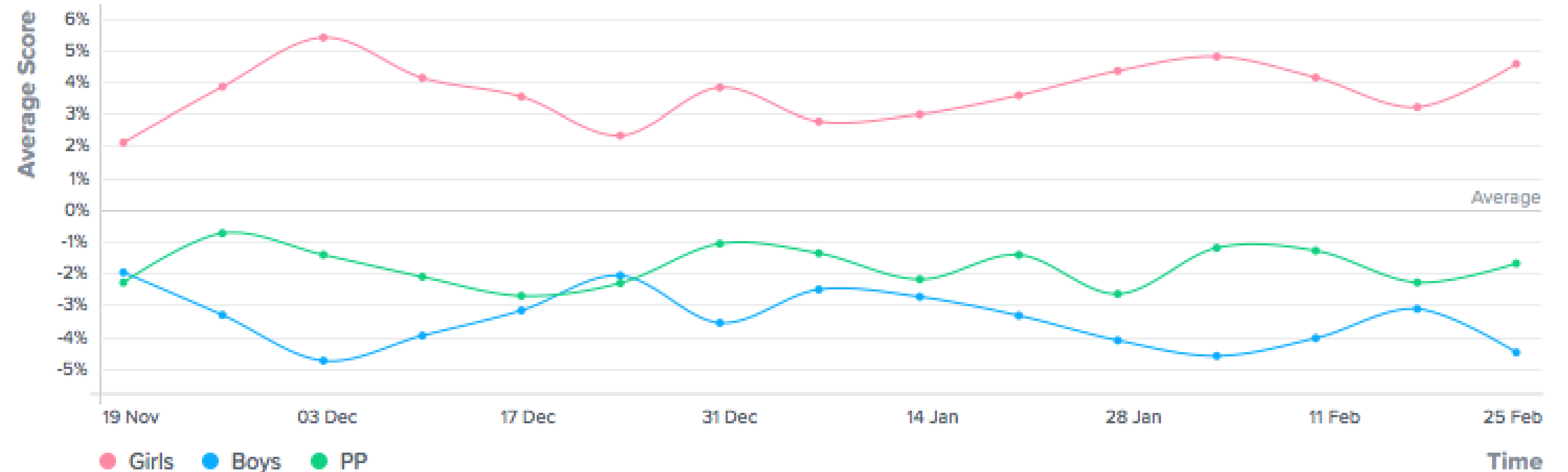


Action Advised

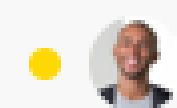


Student Categories Score Deviation

Display: Girls, PP



Lowest Average Score



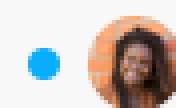
Spillman, Adolph
8EL1, 8EL5

27%



McClellan, Amberly

Highest Average Score



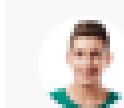
Courser, Delicia
10EL6, 10EL7

100%



Karl, Edward

Most Attempts



Stuart, Badger
10EL1, 10EL2

347

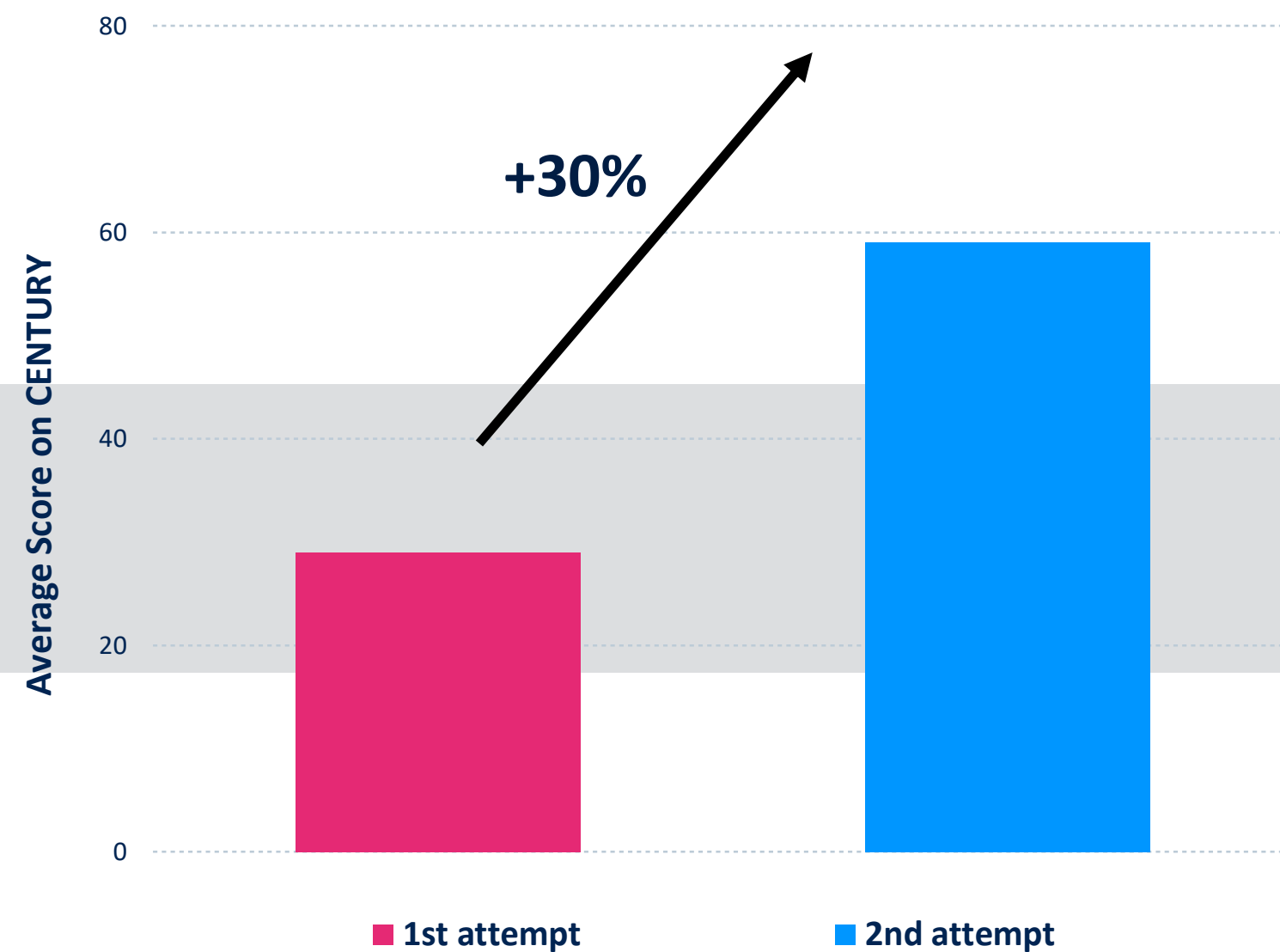


Beil, Janean

With CENTURY, students improve by 30% on average

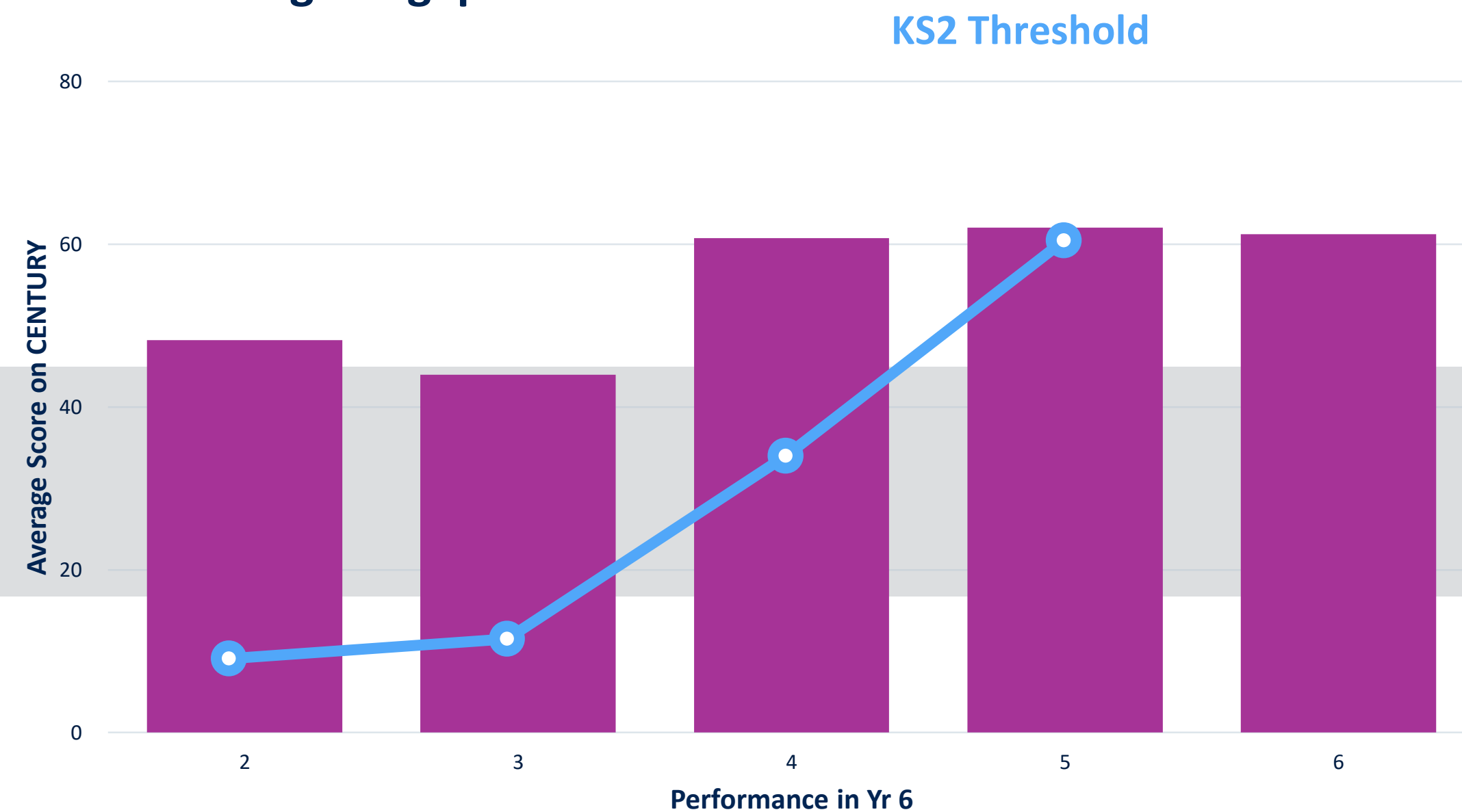
Supported by University College London's EDUCATE programme, analysis of over 11,000 students on CENTURY over the 2017 / 2018 academic year showed:

30% improvement in understanding



When students revisit learning material as a result of CENTURY's recommended learner path, levels of understanding increase by 30% on average.

Reducing the gap



The gap between the lowest ability and highest ability students in the country, based on their previous primary education grades (blue line in chart), was smaller on CENTURY (purple bars in chart), indicating that students were being supported or stretched as appropriate by the recommended material.

**“It frees teachers up a bit more to be teachers,
and human beings”**

*Geoff Barton,
ASCL General Secretary,
May 2018*



“The impact data showed **better results across the board**, notably for children on a pupil premium and those with special educational needs, who **improved at the same rate** as other pupils...

“Teachers spent more time on the rewarding aspects of their jobs... it could cut a teachers workload by nearly a day a week”



TES - May 2018



CENTURY
INTELLIGENT LEARNING™

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