



National Numeracy
for everyone, for life

nationalnumeracy.org.uk

Assume nothing. Benchmarking the numeracy levels of UK social science undergraduates

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The Essentials of Numeracy

The Essentials of Numeracy are the skills and attitudes that everyone needs to use numbers and data to make good decisions at work and at home.

National Numeracy has worked with employers, unions, charities, maths experts such as Cambridge Maths and psychologists to define the Essentials of Numeracy.

The Essentials includes things like being able to understand percentages, spot best-buy deals in the supermarket and manage your money. So we're not talking about algebra and trigonometry.

They are broadly equivalent to a 4 (C) at GSCE.







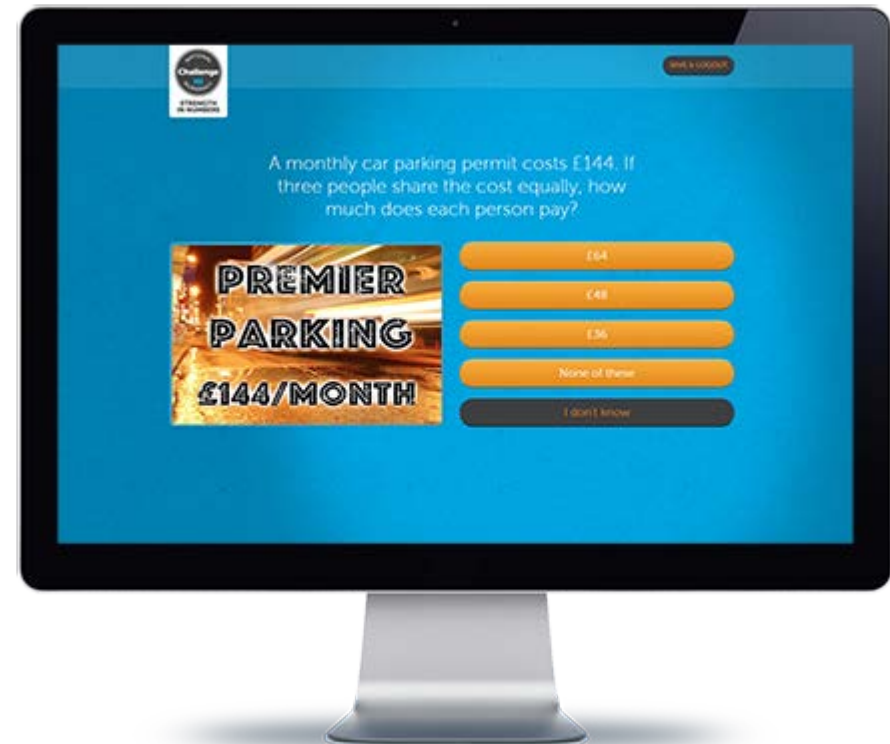
"Getting the
**Essentials of
Numeracy** has
enhanced my
self-belief in my
role at work"

- *Ramesh*

The tool

The [National Numeracy Challenge website](#) allows anyone to find out whether they have a good grasp of the Essentials of Numeracy.

-  **Multiple choice answers.** Each question is multiple choice and uses examples of everyday maths.
-  **No timer. No pressure.** There's no timer or progress bar so you can take your time to think.
-  **Adapts to you.** The questions adapt to how you answer them and only step up when you're ready.
-  **Save your progress.** Take it at your own pace, have a break and come back whenever you need to.



And, yes ! you can use a calculator.

The project

The project aimed to develop an initiative to measure the numerical skills of undergraduate students studying social sciences.

483 assessed their numeracy skills using the Challenge.

Approximately 75% were required to participate as part of a course.

25% participated “of their own free will”.

81% of participants were in the first year of their studies.

What % of those
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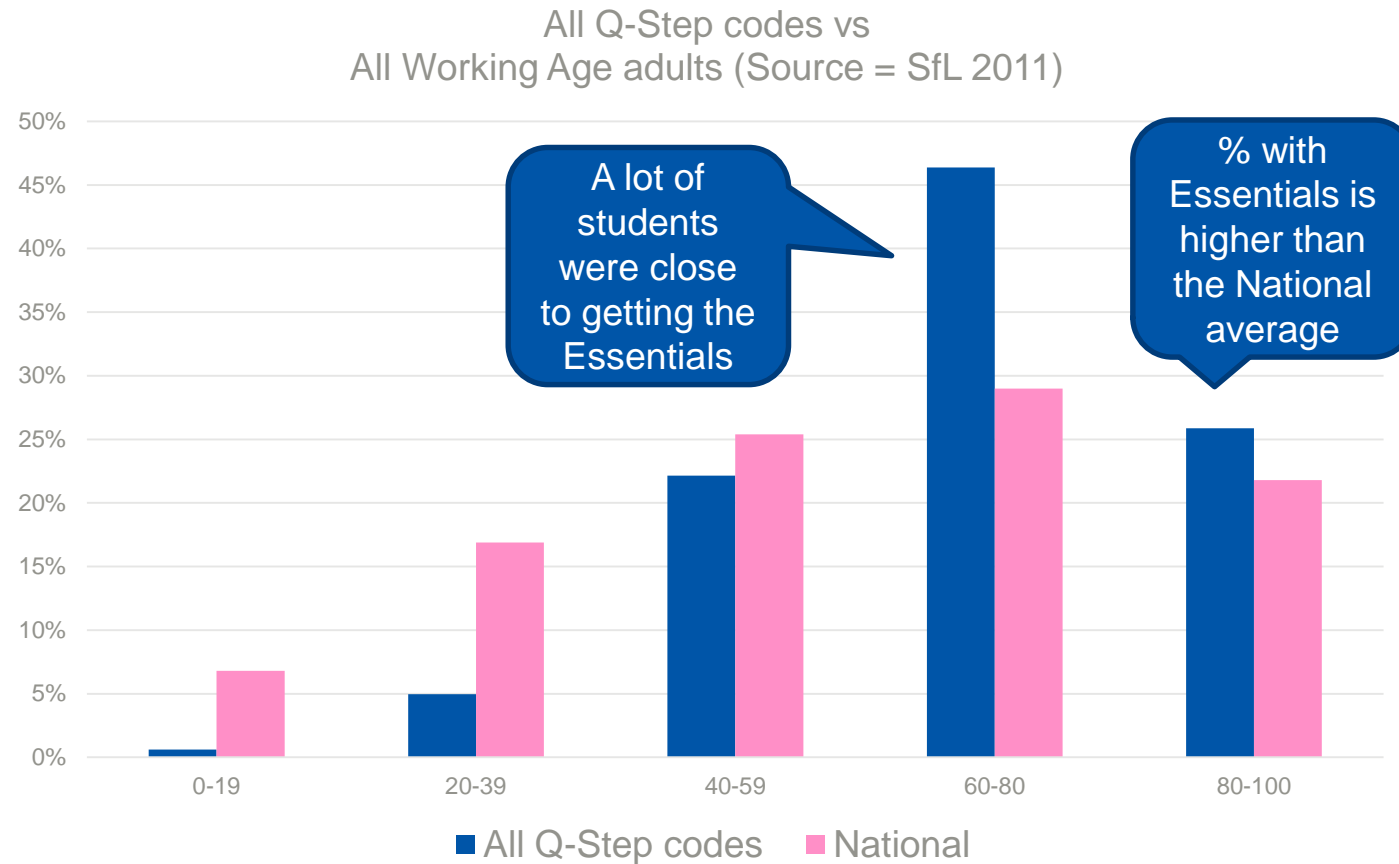
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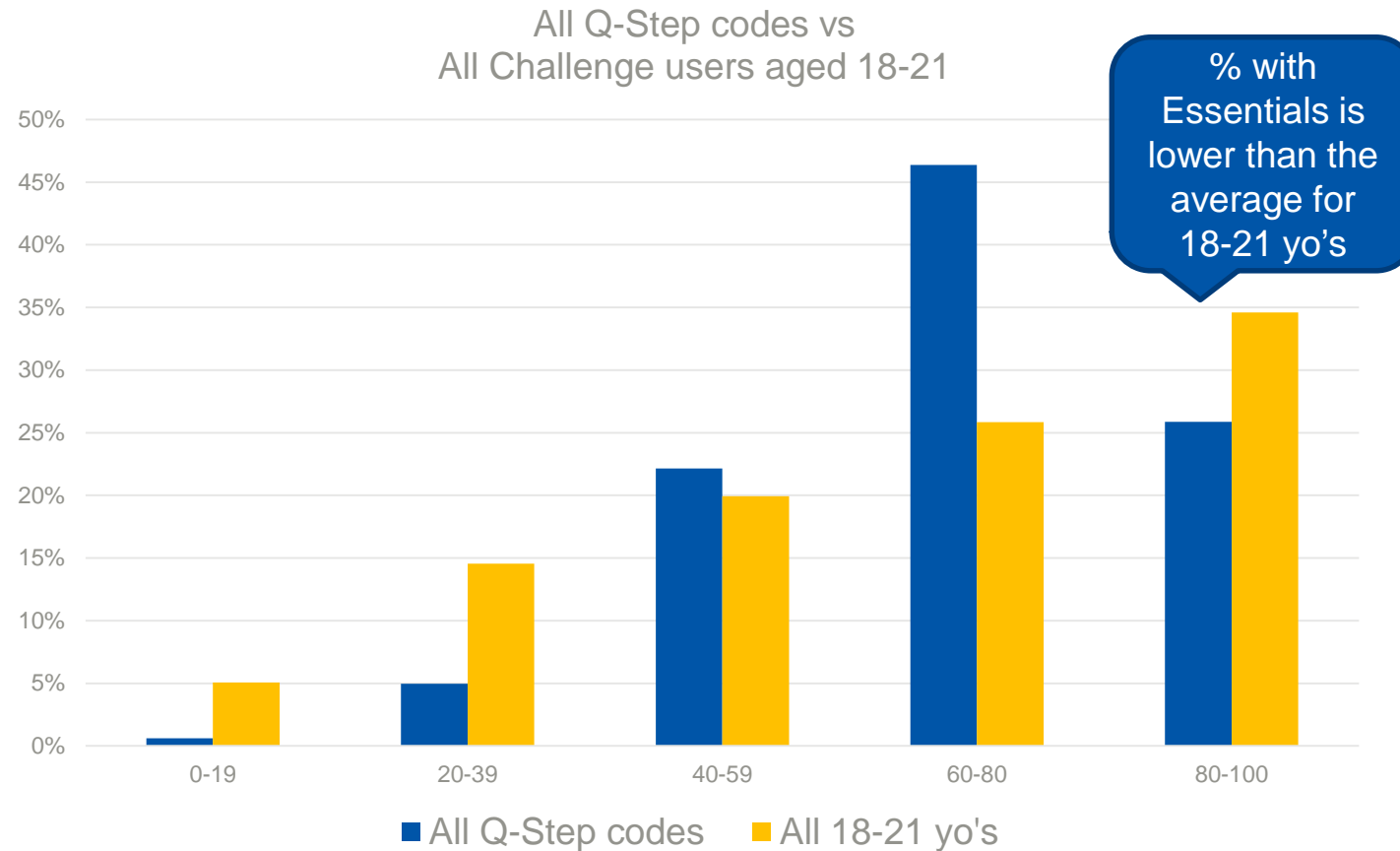
What % of those who participated had the **Essentials of Numeracy** ?

26%

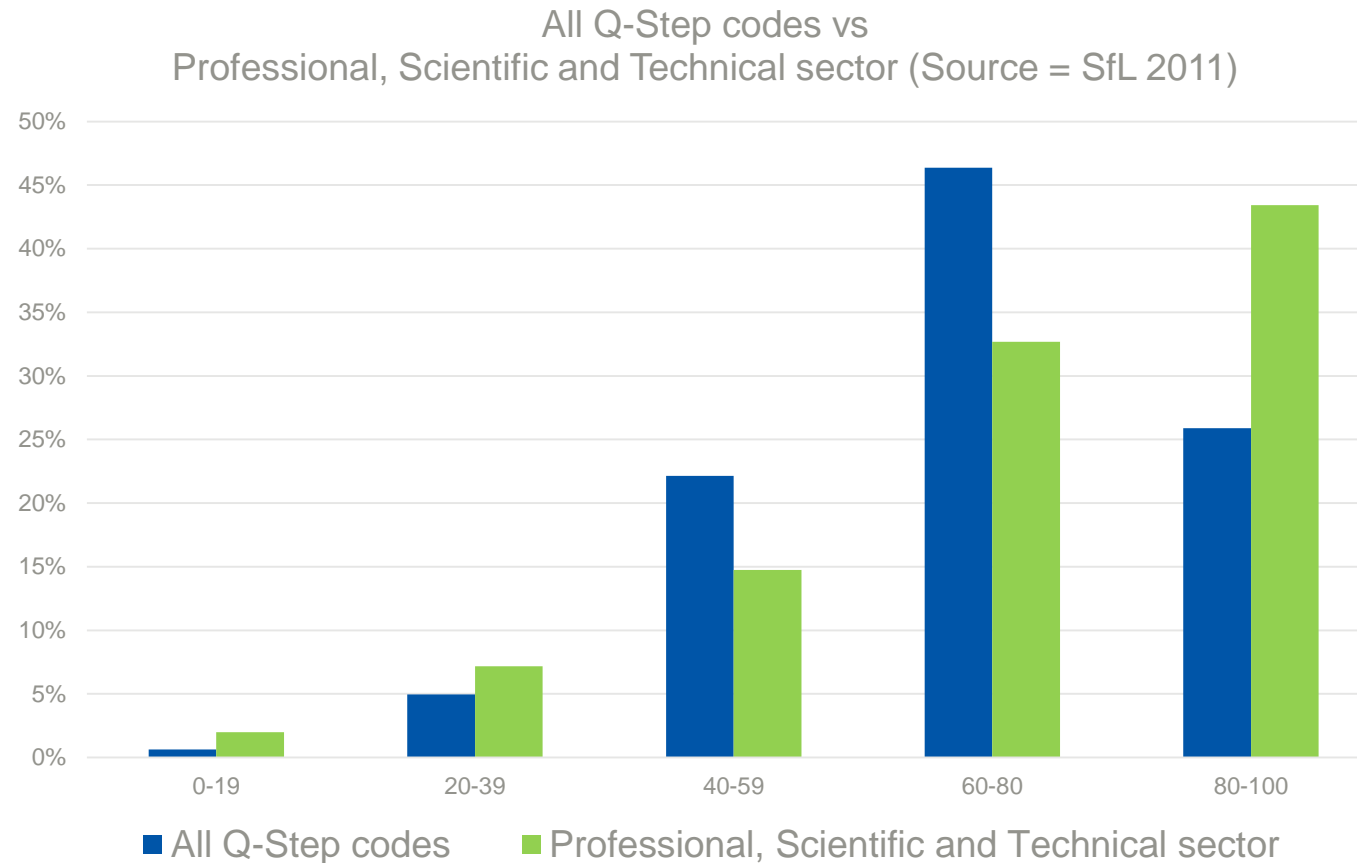
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Recommendations

Universities should :

- embed a benchmarking tool in degree programmes to identify students who would benefit from improving their numeracy.
- consider making engagement with the Essentials of Numeracy a pre-requisite of entry to higher education.
- ensure that all students leave university with the Essentials of Numeracy.

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Why benchmark?



“Let’s teach for mastery...not test scores” – TED Talk - Salman Khan – founder of the Khan Academy

Students will need the Essentials of Numeracy as a foundation to be able to access higher level mathematical content. A pass at GCSE Mathematics is not a guarantee that one has the necessary skills.

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Why embed?

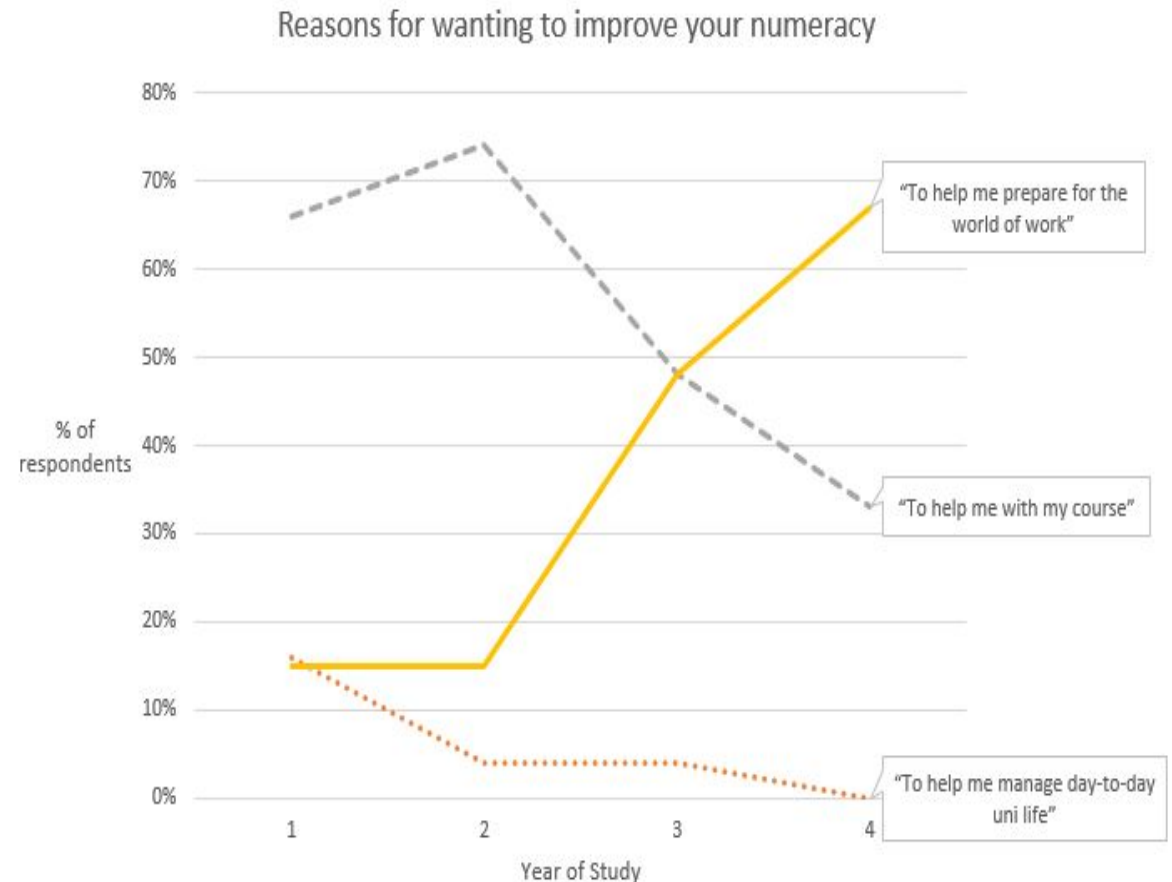
- It takes roughly half an hour to take the Check-Up.
- Includes an attitudinal assessment (thanks to Nuffield) to uncover potential barriers to improving.
- There are adaptive learning resources.
- **Mandation is the key to successful engagement.**

Universities should consider making engagement with the Essentials of Numeracy a pre-requisite of entry to higher education.

We didn't have the opportunity to explore engaging students prior to coming to university.

It was highlighted as a distinct opportunity when we conducted students panels as part of this project.

It's a point when students have more time and you have an chance to engage them in additional ways.



Universities should ensure that all students leave university with the Essentials of Numeracy.

Everyone can improve their numeracy.

Yes, there are barriers to overcome:

- Timing...tapping into reasons (most often related to life stage).
- Attitudes to improving numeracy (especially confidence with numbers).
- Support...the model generally implies self-service but can be tailored to incorporate additional support. Higher education institutions are ideally placed to ensure that appropriate referral / support is there for students to access.

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