

Literacy and numeracy – time for a fresh approach?

Our ability in numeracy and literacy affects how we positively engage in society as well as how we live and work.

Today, many young people in England are unable to demonstrate their literacy and numeracy skills. This is due to the significant numbers each year who fail to secure a pass (grade 4 and above) in GCSE Maths and English. Consequently, these young people may struggle to move on to further and higher education, apprenticeships and employment.

Our research is exploring different approaches to assessing competencies in literacy and numeracy and identifying some of the current barriers to success.

Defining literacy

The ability to read, write, speak and listen in a way that lets us communicate effectively and make sense of the world.¹

Understanding, using, evaluating, reflecting on and engaging with texts in order to achieve one's goals, to develop one's knowledge and potential and to participate in society.²

Literacy is now understood as a means of identification, understanding, interpretation, creation, and communication in an increasingly digital, text-mediated, information-rich and fast-changing world.³

Defining numeracy

Numeracy is often broken down into five main areas:⁴

health numeracy: the skills required to understand and make health decisions, often involving specific maths that isn't needed in daily life

financial numeracy: the skills that impact an individual's ability to manage their money and make sensible financial decisions

digital numeracy: the ability to handle data and the maths required for ICT and engaging with the digital world

civic numeracy: the numeracy skills required to handle bureaucratic processes and engage as a productive citizen

workplace numeracy: the numeracy skills required for the workplace, which will differ depending on the individual and their role

¹ National Literacy Trust. (n.d.). *What is literacy?*
<https://literacytrust.org.uk/information/what-is-literacy/>

² Organisation for Economic Co-operation and Development. (2019a). *PISA 2018 assessment and analytical framework*. OECD Publishing.
<https://doi.org/10.1787/b25efab8-en>

³ UNESCO. (2023). *What you need to know about literacy*
<https://www.unesco.org/en/literacy/need-know#how-does-unesco-define-literacy->

⁴ Gal, I., Grotlüschen, A., Tout, D., & Kaiser, G. (2020). Numeracy, adult education, and vulnerable adults: A critical view of a neglected field. *ZDM – Mathematics Education*, 52(3), 377–394.

Who could benefit from a different approach?

Figures for 2021/22 show that the number of students who had attained Level 2 qualifications in English and Maths by age 19 was at a record high of 74.9%. Despite this, almost two-thirds of those who did not have Level 2 English and/or Maths at age 16 had still not achieved one or both qualifications by age 19.⁵

Some groups have been identified as persistently attaining lower grades than the general population; these include students from Gypsy and Roma heritage,⁶ looked after children,⁷ and students in hospital, pupil referral units or alternative provisions.⁸

While reasons for this lower attainment vary by group, a new approach to assessing literacy and numeracy skills in England could benefit a wide range of students.



Understanding how to bridge the gap

We need to understand why some students do not achieve a pass grade in GCSE English and Maths so that we can ensure future qualifications would not be impacted by the same barriers.

Current alternatives to GCSE, including Functional Skills qualifications, are often not valued or well understood by employers and the wider public, and uptake is declining. Different options to explore further include a digital, on-demand approach, whereby candidates could potentially choose to take an assessment when they feel ready, and opportunities for improved accessibility through educational technology and gamification approaches.

As discussions continue around new ways to assess literacy and numeracy, and how to develop skills such as digital fluency, it's important to take on board the voices of students, education providers and employers.

⁵ Department for Education. (2023, April 27). *Level 2 and 3 attainment age 16 to 25*.
<https://explore-education-statistics.service.gov.uk/find-statistics/level-2-and-3-attainment-by-young-people-aged-19#>

⁶ Department for Education. (2022, March 18). *GCSE English and maths results*.
<https://www.ethnicity-facts-figures.service.gov.uk/education-skills-and-training/11-to-16-years-old/a-to-c-in-english-and-maths-gcse-attainment-for-children-aged-14-to-16-key-stage-4/latest>

⁷ UK Parliament. (2022, July 7). *"Host of indefensible system failings" damaging educational and employment outcomes for children in care*.
<https://committees.parliament.uk/committee/203/education-committee/news/171939/host-of-indefensible-system-failings-damaging-educational-and-employment-outcomes-for-children-in-care/>

⁸ Department for Education. (2022, March 22). *'KS4 national data' from 'Key stage 4 performance'*.
<https://explore-education-statistics.service.gov.uk/data-tables/permalink/e4f6119f-96ec-4c21-a773-8d9c14fa0570>