

Half of pupils who get low grades in GCSEs already judged to be behind at age 5, study finds

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Assessments of children as early as age three and five are powerful predictors of who will go on to fail to secure good GCSE results in English language and math, a major study has revealed. Just under a half (48%) of teenagers who fail to secure standard passes in these core subjects were identified as falling behind by teachers at age 5.

Researchers say the education system is currently failing a "forgotten fifth" of pupils, who after 12 years of schooling leave without the basic literacy and numeracy skills needed to get on in life.

The findings, published as a working paper today, raise fundamental questions about the ways schools identify pupils falling behind in the classroom, and the strategies put in place to enable pupils to develop their early reading, writing and number skills.

The three-year research project, by Lee Elliot Major, Professor of Social Mobility at the University of Exeter and Dr. Sam Parsons from the UCL Center for Longitudinal Studies, seeks to understand why successive Governments have failed to address an issue that has continued to plague England's education system for several decades. Failure to get a grade 4 in both English language and math GCSE is a strong indicator teenagers lack the basic levels of literacy and numeracy needed to function and prosper in life after school.

Improving literacy and numeracy is a central Government priority; earlier this year it announced a goal to increase average GCSE grades in English language and Math in England to 5 by 2030 (from 4.5 in 2019).

The researchers use data from the nationally representative longitudinal U.K. Millennium Cohort Study (MCS) to investigate the educational trajectories of 11,524 pupils born in England in 2000/1 who went on to take their GCSEs in 2016 or 2017. They found that 1 in 5 (18%) of the teenagers did not achieve a grade 4 in both English language and math.

For this cohort of children, all teachers in England completed the Early Years Foundation Stage (EYFS) profile in the final term of the Reception Year in Primary School, with the intention of informing Year 1 teachers about each child's stage of development and learning needs, including expected standards in the EYFS Communication, Literacy and Language (CLL) and Math Development (MD) scales. Just over a fifth of pupils—22%—were judged to have not reached the expected level in the CLL and MD scales. After a further 11 years of schooling, just 1 in 3 (34%) of this group of children went on to achieve a grade 4 or higher in both GCSE English language and math compared to 3 in 4 (74%) of children who were assessed as being at or above the expected level in CLL and MD at age 5.

Among the 1 in 5 teenagers who did not achieve a grade 4 in both English language and math, just under half—48%—had not reached expected levels in CLL and MD scales when they started school at age 5 and more than 1 in 4 (28%) had been directly assessed as "delayed" in the Bracken assessment of school readiness at age 3.

Even after controlling for a plethora of other family and individual characteristics, 38% of children assessed as delayed in the Bracken school readiness assessment at age three are predicted to be below the expected EYFS CLL and MD levels at age 5. This compares to 14% who were "school ready" at age 3. Similarly, after again controlling for family background and individual characteristics including performance in the assessment of school readiness, 27% of children below the expected EYFS CLL and MD levels at age 5 fail to achieve a grade 4 or higher in both English language and math GCSEs compared to 11% of children at the expected levels at age 5.

It is important to control for these family background and individual characteristics as the profiles of these groups of children differ considerably. For example, children assessed as underperforming at age

three, five or 16 were twice as likely to be born to a teenage mother and to be living with a [single parent](#), and three times more likely to be living in a workless household. Their parents are three times more likely to have no or poor education qualifications (equivalent to low GCSE grades) and were less likely to have attained a degree or higher qualifications. Their home is more likely to be rented, overcrowded or damp and situated in poorer areas.

Young children who were not school ready at age three were less likely to be female and to be the first-born child, to have never been breastfed, and they were twice as likely to have had a low birthweight. Under achievers at age five meanwhile were twice as likely to be younger summer born children in their school year.

Professor Elliot Major said: "The forgotten fifth of pupils leaving school lacking basic English and math skills is one of education's biggest scandals. Our research lays bare the unraveling tragedy for the 100,000 teenagers who each year leave schools without basic skills.

"Government attempts to address this challenge will fail without high quality support for children during the pre-school years and greater efforts to identify, diagnose and most importantly respond to [children](#) falling behind at early stages of schooling. We should also consider introducing a basic threshold qualification for functional literacy and numeracy skills that all [school](#) leavers would be expected to pass."

Dr. Parsons said: "What is striking about our analysis is that the association between earlier assessments and later outcomes is barely attenuated by the wide range of [family background](#) and individual characteristics we are able to include in our analyses. Poor performance in the early years together with socio-economic disadvantage are clear risk factors for poor performance in GCSE English language and math examinations, which are in turn increasingly crucial for post-16

transitions."

Early findings of the research were shared with the Government as it prepared its [white paper](#) which set ambitious goals for improving standards in reading, writing and math at in England by 2030. This year saw the first GCSE results in England based on examinations since the pandemic, revealing that 35.1% of pupils had failed to gain a grade 4 in math GCSEs and 30.2% had failed to gain a grade 4 in English language GCSEs.

The working paper, "The forgotten fifth: examining the early education trajectories of teenagers who fall below the expected standards in GCSE English language and [math](#) examinations at age 16" will be presented by the research team at the British Educational Research Association's annual conference next week.

Provided by University of Exeter

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