

Maths lessons don't add up for pupils

December 6 2007

Schools are having virtually no impact on the progress of 11 to 14-year-olds in maths according to a study by University of Manchester researchers.

Professor Julian Williams from the School of Education led the investigation which found that year on year improvements in mathematics were almost nonexistent for higher and lower achievers.

Specially devised, independent tests revealed that the performance of 12,591 English 5 to 14-year-olds remained almost static in secondary schools - what Professor Williams calls 'the plateau effect'.

Primary school test scores did rise every year in the 120 schools studied by the team, though the increases slow down gradually with age.

The team also identified that children born in the summer who start their education as the youngest in the class are lower achievers than children born in the summer who start as the oldest in the class.

However, the extra year's advantage is reversed by the time children get to 11.

Professor Williams said: "Our data confirms that children across a range of abilities make practically no progress in maths between the ages of about 11- and 14-years at school.

"This pattern between 11 and 14-years is not significantly different for

the higher or lower achieving child.

"At this rate of progress it would take ten years of extra teaching for a lower achieving classmate to catch up with his or her higher achieving peer, and five years for the lower achiever to score as well as the average in the class.

"We did record short term improvements in test scores around the period of national testing at key stage 1 and 2 (years 2 and 6).

"However, these increases were short term and the overall trend continued shortly afterwards in years 3 and 7, suggesting lack of lasting gain in children's understanding.

"The implications seem to us so serious that, rather than look for alternative explanations for our data, policy makers should as a matter of urgency seek to survey performance by large scale representative samples."

He added: "The figures also suggest that 'early years' children in the next year up are doing much better than a child of the same age in the younger class, having perhaps experienced as much as a whole year's extra schooling.

"A natural interpretation here is that the year two children have had up to a year longer in school and this extra teaching and curriculum exposure is reflected in enhanced performance.

"However, this advantage would seem to have disappeared by the end of primary school, and goes into reverse in secondary school.

"It seems that the extra year of schooling as a 'small fish in a big pond' is disadvantaging the younger learners born in August. Starting school in

September seems to disadvantage these children."

Source: University of Manchester

Citation: Maths lessons don't add up for pupils (2007, December 6) retrieved 23 April 2024 from <https://phys.org/news/2007-12-maths-lessons-dont-pupils.html>

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