

**Press release: Friday, September 28, 2007**

The Centre for Research on the Wider Benefits of Learning

## Numeracy skills particularly important for disadvantaged children

Children from disadvantaged backgrounds who are given a good grounding in numeracy in infant school are more likely to succeed in English as well as maths at the age of 11, new research suggests.

The key importance of numeracy for children from poor families has been highlighted by a study which tracked the progress of almost 10,000 pupils between the ages of 7 and 11.

The study's author, Kathryn Duckworth of the Institute of Education, University of London, said that the "predictive power" of maths test results at age 7 was quite striking for disadvantaged children. "It might be said that children from poor backgrounds who did well in maths at age 7 and then went on to get good results in English and maths at the age of 11 simply had a higher IQ but it is more complicated than that. I checked the children's recorded IQ scores at age 8 and found that they did not provide the explanation.

"It is possible that doing well in maths at age 7 acts to heighten children's self-confidence and aspirations. It may also encourage teachers to offer them more support, which then translates into successful performance at age 11. A good result in English at 7 is obviously essential too, but not quite as important for future progress."

Kathryn Duckworth emphasised, however, that her research should not be used to justify separate educational "treatments" for particular social groups. Instead, it provided support for the Government's policy of personalised learning. "Assessment needs to provide a rounded picture of children's development and support learning as well as measure it," she said.

The study was funded by the Department for Children, Schools and Families and was based on an analysis of test results for children in Avon born between April 1, 1991, and December 31, 1992. It shows that boys made more progress in maths between the ages of 7 and 11 while girls pulled ahead in English during this stage.

Almost two-thirds of children made the expected amount of progress in English and maths – two of the 10 national curriculum levels – in junior school. However, one in four

fell short of this target and a smaller number exceeded it (12 per cent in English and 15 per cent in maths).

“Overall, there is substantial stability between the ages of 7 and 11 but there is also mobility,” Kathryn Duckworth explained. “Half of the children who were in the bottom 25 per cent at age 7 had managed to ‘escape’ to a higher quartile by age 11 and one in 30 children who were in the bottom quarter at 7 had reached the top one by 11.

“It is important to recognise this potential for mobility. If people feel that ability is fixed and innate, then the response to poor educational performance, both by teachers and pupils, will be to disengage as nothing can be done. In fact, this research confirms that there is an ever-present potential for improvement.”

Kathryn Duckworth’s study, *What role for the three Rs? Progress and attainment during primary school: Wider Benefits of Learning Research Report No 23*, can be downloaded from <http://www.learningbenefits.net/>

Further information from:

David Budge

Centre for Research on the Wider Benefits of Learning

Institute of Education

University of London

020 7911 5349

07881 415362

[d.budge@ioe.ac.uk](mailto:d.budge@ioe.ac.uk)

Notes for editors:

1. The Centre for Research on the Wider Benefits of Learning (WBL), which is based at the Institute of Education, University of London, investigates the benefits that learning brings to the individual and to society as a whole. WBL’s main objectives are to clarify, model and quantify the outcomes of all forms of intentional learning so as to inform the funding, implementation and practice of educational provision through the life course. The Centre is funded by the Department for Children, Schools and Families.
2. The Avon Longitudinal Study of Parents and Children (ALSPAC) has produced a wealth of data on children born in the former Avon Health Authority between April 1, 1991, and

December 31, 1992. Data have been collected at numerous time points since birth and come from a variety of sources: the cohort member, their mother, her partner, clinic-based tests, and schools. For the purposes of this new WBL study, administrative data from the National Pupil Database were merged with the ALSPAC data. These data cover all relevant state schools in the four Avon LEAs.

3. Children were regarded as disadvantaged if their parents were lowly educated or from low occupational class groups.