



National Research and Development Centre
for adult literacy and numeracy

RESEARCH SUMMARY

PARENTS' BASIC SKILLS AND THEIR CHILDREN'S TEST SCORES

Augustin De Coulon, Elena Meschi and Anna Vignoles

MAY 2008

This report assesses the impact of parents' basic skills in literacy and numeracy on their children's cognitive outcomes. The context for the report includes the low numeracy and literacy levels for a large proportion of the UK adult population and the significant gap in the cognitive skills achieved by children from lower and higher socio-economic groups. We therefore set out to understand whether and to what extent these skills may be transferred intergenerationally. If there is extensive intergenerational transmission of skills, this will also highlight the importance of a family-based approach to reducing the inequality in the distribution of cognitive skills of children coming from different family backgrounds.

The report addresses the following policy questions:

- Do parents' basic skills in literacy and numeracy affect the cognitive outcomes of their children?
- Is this effect uniform across different levels of parental qualifications, and across gender?
- Are there any differences between the impact of literacy and numeracy on children's cognitive achievement?

- Do parents' basic skills also impact on children's non-cognitive outcomes?

We investigated these questions using data drawn from the British Cohort Study 1970 (BCS 70). This is a rich longitudinal study of 18,000 individuals born in one week in 1970 and regularly interviewed since then. In 2004 the interviews included basic skills assessments for the parents (aged 34) and cognitive skill assessments for their children. We were able to allow for a vast array of other family and individual characteristics that influence child achievement, including information on the parents' childhood and schooling, as well as their socio-economic background. The richness of the data enabled us to identify causal relationships between parents' basic skills and their children's cognitive development.

Our results suggest the following conclusions:

- The impact of parents' basic skills on children's cognitive outcomes is positive and highly significant.
 - This relationship holds even when we allow for the myriad of other factors that also influence child development, including parental qualification levels and parental ability →

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measures (i.e. parental cognitive ability as measured at age 10). This means that parents' basic skills have a positive impact on their children's cognitive skills, regardless of the education level and early ability of the parent.

- The intergenerational transfer of basic skills is always significant, and it is particularly large for parents with low levels of qualifications.
- There are no significant differences between the transfer of skills from mothers and fathers to children. However, we found some evidence of a gender-specific transfer: mothers' basic skills are more significant for daughters than for sons, and fathers' basic skills are more significant for sons than for daughters.
- Parents' literacy skills seem to be more significant than their numeracy skills in affecting the cognitive performance of their children.
 - In particular, we found a significant cut-off point between parents at below the minimum target of literacy set by the government (Level 1) and parents with higher levels.

- Our results suggest that young children* of parents with Level 1 in literacy perform significantly better (63 per cent higher) than children of parents with the lowest level of literacy. For older children** the effect is even greater: children's performance is twice as high when parents have Level 1 in literacy, compared to parents with the lowest level in literacy.

- Whilst parents' basic skills have a direct impact on children's cognitive outcomes, we found no evidence of the impact of parental basic skills on non-cognitive outcomes, for example confidence and self-esteem.

These results suggest that policy aimed at increasing parents' basic skills may have large effects on children's learning. There is particular scope for policies targeted at lowly-qualified adults and young parents, from whom these effects are especially strong.

* Aged 3 years to 5 years and 11 months

** Aged 6 years to 16 years and 11 months

The full research report on which this paper is based can be found at www.nrdc.org.uk

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