

Mothers' speech plays a small role for educational inequality

Research funded by the Nuffield Foundation shows that how mothers speak explains only a small portion of the education gap between children from low and high socioeconomic status families

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In brief

Children from lower socioeconomic status families tend to do worse in school than children from higher socioeconomic status families. For decades, this education gap was argued to be due to children's early life language experiences: In higher socioeconomic status families, mothers speak with richer vocabulary and more complex grammar than in lower socioeconomic status families. In new research, we analysed of 2.5 million words spoken by mothers and followed their children between the ages of 5 and 18 years. We found that mothers' speech matters – but it explains only a *very small* proportion of the educational inequality between families.

Key findings

- **'Word gap' in mothers' speech:** Mothers of higher socioeconomic status used more sophisticated vocabulary when talking than mothers of lower socioeconomic status.
- **Links to children's outcomes:** Children whose mothers used more sophisticated vocabulary had better reasoning, literacy, and school grades.
- **Small causal role:** Mothers' vocabulary sophistication explained **around 3%** of the link between mothers' and children's educational outcomes.
- **Bigger forces at work:** Family socioeconomic background had stronger influence on children's educational outcomes than mothers' speech.

Impact

Researchers and policymakers have argued that educational inequality could be substantially reduced if parents – especially mothers – changed how they speak with their children. Yet, our findings suggest that interventions aimed at mothers' speech can change children's educational achievement only modestly. Instead, directly reducing socioeconomic inequality between families is likely more effective for improving children's educational outcomes.

Our findings should not be interpreted to say that mothers' speech is unimportant for their children. We emphasise that mothers' speech matters, but mothers can neither themselves overcome structural inequalities via their speech nor is their speech solely responsible for their children's educational outcomes. Improving families' socioeconomic circumstances is likely to have broader and more sustained benefits for children's education than focusing narrowly on mothers' speech.

How the study was done (in brief)

The study draws on the **E-Risk**, a UK-representative cohort of **1,116 families with twins born in 1994–1996**. Researchers analysed **336 hours of naturalistic recordings** (around **2.5 million words**) of mothers talking. Children's cognitive, literacy, and educational outcomes were tracked from ages 5 to 18, alongside detailed information on family background and genetic propensities.

This is a summary of the full report: *The role of mothers' speech in the transmission of family background inequality* (including a 6-page Executive Summary).