

Performance in school is heritable, but inequality of education still an issue

The idea that children can inherit the ability to get good results at school can spark heated debate. But, put simply, all this means is that children differ in how easy and enjoyable they find learning and that these differences are to a large extent explained by differences in their genes, rather than differences between schools or teachers.

We know from previous research that educational achievement in [primary](#), middle school years and at the [end of compulsory education](#) is highly heritable. Heritability is a population statistic – it doesn't tell us anything about a single individual. It describes the extent to which differences between children can be put down to DNA differences, on average, in a particular population at a particular time.

When we analysed different traits, we found that educational achievement is [correlated with many characteristics of children](#), not just intelligence. Our results indicate that these correlations are largely mediated by genetic factors. To the extent that children's traits predict educational achievement, they do so largely for genetic reasons.

Despite high heritability, with sufficient educational effort, nearly all children could reach minimal levels of literacy and numeracy. This is an explicit goal of education in Finland. Success in achieving that goal would reduce differences in children's educational achievement, which could change heritability. Hypothetically, if all environmental effects on individual differences (such as educational inequality) were to be minimised, then the heritability estimate for educational achievement would be 100 percent.

Read full, original story: [How genes can influence children's exam results](#)