THE RELATIONSHIP BETWEEN TIME IN EDUCATION AND ACHIEVEMENT IN PISA IN ENGLAND

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Current OECD publications suggest that each additional year of schooling has a substantial impact upon the performance of pupils in PISA tests. However, these figures are based on simple models that compare the performance of pupils in different school years but do not differentiate between the effect of additional schooling and the effect of pupil age. It is already well known that on average, within any given year group, the oldest pupils will outperform the youngest. This is most commonly seen amongst pupils in English schools by comparing the results of September and August-born children. Failing to account for the effect of age may lead to an overestimation of the relationship between additional schooling and performance.

This paper estimates the effect of one additional year of schooling on achievement in PISA for pupils in England. The size of this effect within English schools may indicate the extent to which the curriculum being taught in English schools aligns with the particular content of the PISA tests.

The research presented in this paper makes use of combined data available from the Programme for International Student Assessment (PISA) from 2000 and 2003. A regression discontinuity approach is used to examine the impact of additional schooling on achievement. In essence, this approach compares the performance of the youngest pupils in one year group (that is, August-born children) with the oldest pupils in the year group below (that is, September-born children) whilst accounting for the general trend in the relationship between age and achievement. Because August-born children are in a higher year group and have typically been attending school for a longer period of time, this difference provides an estimate of the likely impact of additional schooling on performance.

The analysis extends and improves upon the work of Luyten, Peschar and Coe (2008) and shows that, once the age of pupils is taken into account, there is in fact no relationship at all between additional schooling and performance in the PISA tests. This points towards a disconnect between what has historically been taught in English schools and what is being tested in PISA. This in turn raises questions about the extent to which performance in PISA can be used to assess the quality of teaching in England.