

LATER IS BETTER: MOBILE PHONE OWNERSHIP AND CHILD ACADEMIC DEVELOPMENT

Evidence from a longitudinal study

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Later is better: Mobile phone ownership and child academic development, evidence from a longitudinal study¹

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INTRODUCTION

Children are increasingly getting access to mobile phones, and mobile phone ownership is now occurring at a time in children's lives where their literacy and numeracy skills are developing. We examine whether there is an association between early mobile phone ownership and academic outcomes and whether *delaying* mobile phone ownership benefits the development of children's academic skills. The mobility of mobile phone technology allows it to have a potentially unprecedented impact on children's development. It can seamlessly cross into school and home settings; it is difficult for parents and teachers to supervise and monitor usage, as it accompanies the child throughout the day; and, consequently, the frequency of engagement with mobile phone technology is likely to be far higher for than other forms of technology.

How does mobile phone ownership impact on children in Ireland? Earlier research from other countries, while limited in scale and scope, has suggested that mobile phone use may have a negative impact through cognitive overload, increased distraction and altering memory and learning patterns. Studies have also shown that phones can reduce both sleep duration and sleep quality, which is also likely to impact on children's academic progress.

¹ This Bulletin summarises the findings from Dempsey, S., Lyons, S. and McCoy S., 2018, "Later is Better: Mobile phone ownership and child academic development, evidence from a longitudinal study", *Economics of Innovation and New Technology*, online 20 December 2018. Available online: <https://doi.org/10.1080/10438599.2018.1559786>
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DATA AND METHODS

Using data on 8,500 9-year-old children in Ireland from *Growing Up in Ireland*, we examine how children with longer or shorter periods of mobile phone ownership performed on standardised reading and maths tests. Given how well each child was performing at age 9 and taking into account many of their characteristics, we can see if those who received phones later than age 9 performed better or worse at age 13 than those who already had phones at age 9. Children's access to mobile phones is influenced by their family and school characteristics, with more highly educated parents and those with higher incomes less likely to provide phones at this young age. We take account of the characteristics of children who receive phones in looking at how early ownership shapes children's academic development. Children attending more socially disadvantaged schools are more likely to have phones, all else being equal.

RESULTS

In both reading and maths, children who already report owning a phone by the age of nine fare less well in terms of their academic development as they move into adolescence. The negative association with academic outcomes persists across socio-economic groups. The shortfall for early-adopters in both reading and maths scores at age thirteen equates to about a 4 percentile lower level of exam performance. The findings suggest that there may be significant educational costs arising from early mobile phone use by children. Parents and policymakers should consider whether the benefits of phone availability for children are sufficiently large to justify such costs. Recently, the then Minister for Education and Skills, Richard Bruton, asked schools to consult with parents and students to make decisions on the place of smart phones and personal devices in school. The intention is to promote a shared approach regarding the appropriate use of digital technologies. The approach is novel, and the evidence from this research may help schools in making decisions on whether access to mobile devices should be restricted.

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