School and home influences on youth ICT skills development in Ireland[1, 2]

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INTRODUCTION

Recognising the critical role of digital literacy in modern society, policymakers aim to foster digital inclusion and lifelong learning by equipping citizens with essential Information and Communications Technology (ICT) skills. While young people are often perceived as 'digital natives,' there remains a need for active instruction and guidance to develop 21st-century skills and foster online safety. To effectively support people in an online world, it is crucial to understand how people develop their ICT skills. Do young people in Ireland feel that their second-level education is providing them with digital skills needed for the future?

This study investigates how exposure to technology at school and at home impacts young people's perceptions of their digital skills learning within the school environment. By examining socio-economic, school, and home factors, this research explores the complexities of ICT integration in education and "digital divides" in the experiences of students from different backgrounds.

Specifically, this study addresses the following research questions:

1. Does early exposure to technology-rich environments at ages 9 and 13, both in school and at home, influence a student's belief that they acquired sufficient digital skills in school by age 17?
2. How do school, home, and social factors influence these relationships?

[1] This Bulletin summaries the findings from: Míde Griffin, Gretta Mohan*, Selina McCoy and Seán Lyons (2025) 'Who says school provides computer skills? Early ICT exposure and later skill perceptions – evidence from school and home environments in Ireland'. *Technology, Pedagogy and Education.* Available at: https://www.tandfonline.com/doi/full/10.1080/1475939X.2025.2505130?src=exp-la

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DATA AND METHODS

The research uses longitudinal data from the *Growing Up in Ireland* study, following over 5,600 children from age 9 to 17. Statistical models analyse the relationship between ICT exposure and students' beliefs about school-provided digital skills, considering variables from school, home, and socio-economic contexts.

RESULTS

This research reveals several factors influencing student perceptions of digital skills acquisition:

- **School ICT Environment:** While most school ICT factors had limited impact, students who took computer studies as a dedicated subject (at age 13) were more likely to believe that school effectively provided them with ICT skills.
- **Home ICT Environment:** Students without home computers at age 9 were more inclined at age 17 to believe that school had benefited them in terms of ICT skills, compared to those with home computers. Excessive recreational internet use negatively impacted this belief, whereas using the internet at home for school projects was positively associated with the belief that school provided digital skills.
- **School Factors:** Students in ETB (Education and Training Board) schools and girls in single-sex voluntary secondary schools showed a stronger belief in school's role in providing computer skills. Neither school DEIS (catchment disadvantage) status nor fee charging status impacted beliefs on digital skill learning at school.
- **Home Background Factors:** Students from lower socio-economic households and those with less-educated parents were more likely to attribute their digital skills to school.
- **Child Factors:** Female students, those with higher levels of conscientiousness, and stronger academic self-concept were more likely to believe that school effectively provided them with digital skills.

This research suggests that the school environment plays a more important role in ICT skill acquisition for students from lower socio-economic backgrounds, with important implications for addressing digital divides. However, as neither DEIS nor fee charging school status impacted perceptions of school's role in computer learning, it may be that Irish education policy has mitigated some of the digital divides between schools. Taken together, this suggests the important role of enhanced ICT funding for schools serving more disadvantaged areas. In general, promoting the take-up of computer science as an examination subject and extracurricular activities like coding clubs will be important. A move towards diverse assessment methods, including projects and presentations, and integrating digital technologies in classrooms more generally, will likely support digital skills acquisition. Investment in teacher professional development, resources for ICT coordination, and promoting innovative school leadership are also highlighted.

CONCLUSIONS

The study concludes that socio-cultural context, including school and home environments and social factors, significantly influences students' perceptions of ICT skill acquisition. Schools play a crucial role in providing digital skills, especially for students experiencing socio-economic inequality.