



L&RS Note

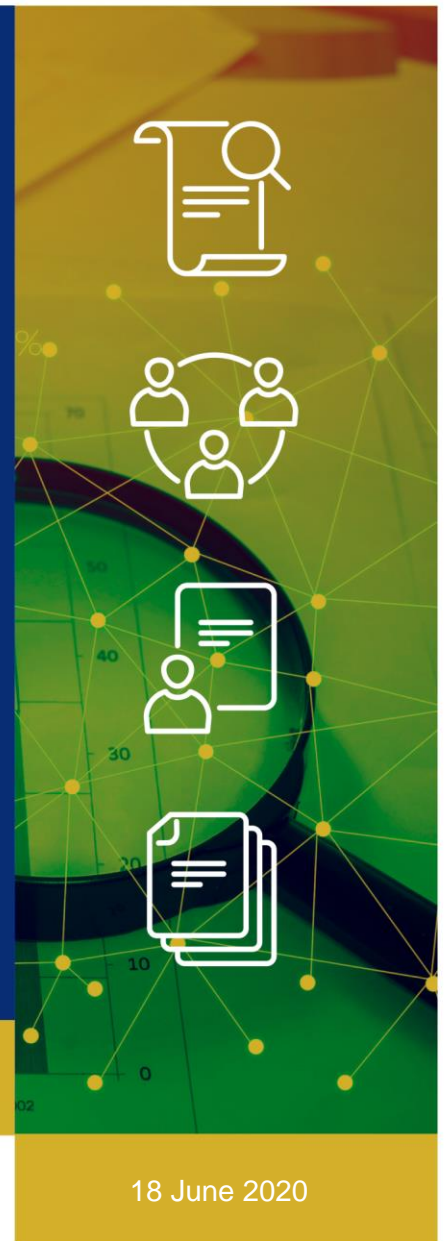
M-learning in schools – an opportunity for change?

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Abstract

This *L&RS Note* explores the use of mobile learning (m-learning) to create new learning opportunities for children within classroom settings, as well as outlining some recent controversies around the use of mobile technologies in schools. The *Note* also considers the policy context, both national and international, of integrating technology into school environments. Following this, it examines how skills and practice in Irish schools compares internationally. Finally, the *Note* reflects on the policy implications of technological innovations such as m-learning.

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Please note that this paper was drafted and completed prior to the COVID-19 pandemic as part of the L&RS's horizon scan of relevant topic areas for incoming Members of the 33rd Dáil and 26th Seanad. The subject matter of this paper has since been overtaken by events, with classroom-based teaching not currently taking place in our schools. However, the L&RS has decided to publish this article to inform future debates concerning the use of technology in physical classrooms – a topic which once again will be of relevance when schools reopen.

Introduction

Mobile learning (m-learning) uses modern technologies to create new learning opportunities. Schooling in Ireland could change in fundamental ways with the use of mobile technologies.

What is m-learning?

M-learning is closely linked with 'ubiquitous learning'. This means that learning can take place anywhere and anytime, as mobile technologies like smartphones and tablets are portable. There is growing evidence that m-learning can help provide more personalised and interactive learning. But this requires policy structures on the appropriate use of technology and supports for teachers (e.g. training), as well as technological support. Research suggests that, in the absence of these conditions, increased access to digital technologies might have limited, or potentially negative, impacts on learning. For instance, the recent [Stavanger Declaration Concerning the Future of Reading](#) (resulting from an EU-funded research network of almost 200 academics) noted that:

“..rapid and indiscriminate swaps of print, paper, and pencils for digital technologies in primary education are not neutral. Unless accompanied by carefully developed digital learning tools and strategies, they may cause a setback in the development of children's reading comprehension and emerging critical thinking skills..”

Controversies around the use of mobile technologies in schools

Controversy concerning the use of mobile technologies in schools recently emerged, particularly in relation to 'iPad-only' policies. An [Independent Review Group](#) (IRG) reviewed the use of tablets in one Irish school. The review, which primarily focused on a single school, identified a range of issues including pupil distraction, concerns about the quality of available resources, and technical difficulties. The IRG recommended the reintroduction of books and the use of high-quality digital resources where available.

A key element of m-learning is that it involves the correct digital tools being used in an appropriate way to improve teaching practices. This is a new and emerging area of research and, as such, there is limited robust research (incl. longitudinal and subject-specific data) establishing the efficacy of m-learning.

Policy context in Ireland

The [Digital Strategy for Schools 2015-2020](#) provides a plan for integrating technology into Irish schools. A key objective was adapting the [UNESCO ICT Competency Framework for Teachers](#). This Framework outlines the digital skills needed by teachers to use technology effectively. It foresees that teachers will move from using technology as a companion to existing teaching practice, to using it to create new teaching and learning strategies.

The [Digital Learning Framework](#) (DLF) was developed by adapting this UNESCO Framework to Ireland. The DLF aims to provide a common guide to digital skills for schools by outlining examples of 'effective' and 'highly effective' practices across a range of areas (e.g. learning outcomes and teachers' practices).

International policy context

There are a range of tools to help teachers and schools improve digital skills, including:

- [DigCompEdu](#) (the *European Framework for the Digital Competence of Educators*) focuses on the development of key digital skills for teachers. The progression model for the *Teaching* competency, for instance, ranges from 'Newcomer' ('Making little use of digital technologies for instruction') to 'Pioneer' ('Using digital technologies to innovate teaching strategies').

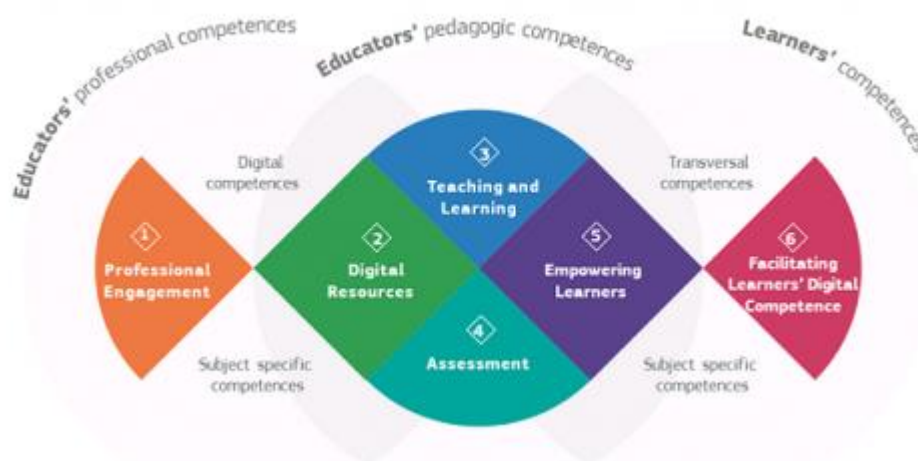


Figure 1 Areas and Scope of DigCompEdu
Source: [Redecker \(2017\)](#) [©EU, 2017]

- [SELFIE](#) (*Self-reflection on Effective Learning by Fostering the use of Innovative Educational Technologies*) is designed to help schools put digital technologies into practice. It gathers the views of a school community and assesses use of digital technologies via a SELFIE report, which can be used to set targets and measure progress.

- [Future Classroom Lab](#) (European Schoolnet) is a learning environment which aims to prompt thinking about the role of teaching, technology and design in the classroom across six learning zones: Present, Investigate, Create, Exchange, Develop and Interact.



Figure 2 [Future Classroom Lab](#) [©European Schoolnet 2017]

How does Ireland compare internationally?

A [2019 European study](#) considered *digitally supportive schools*, based on policies and levels of support for technology usage. As Figure 3 below shows, 20% of EU primary school students attended schools with a 'strong policy, strong support' profile.

Nordic and Baltic countries tended to have the highest percentage of primary students attending such schools (e.g. Estonia 82%, Finland 71%). Ireland had a low share (7%). By contrast, Ireland had a higher share (65%) attending schools with a 'strong policy, weak support' profile than the EU average (29%).

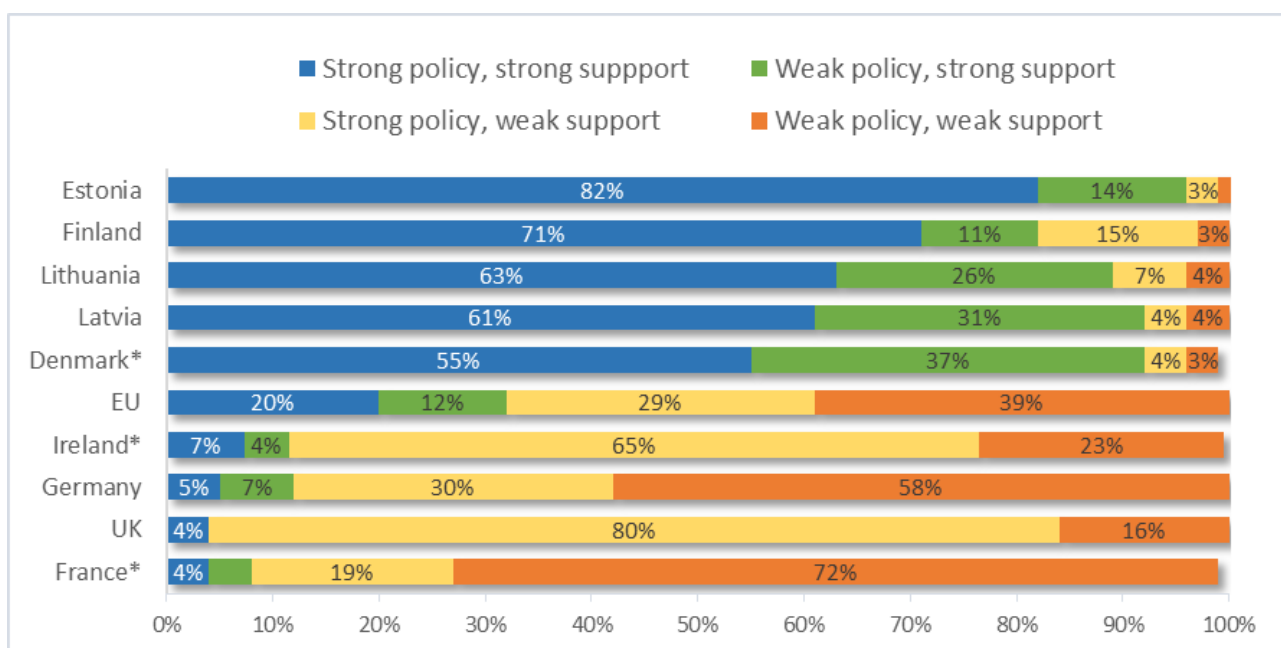


Figure 3 Share of digitally supportive primary schools in % of students; 2017-2018.

*Please note that values may not add up to 100% due to rounding. [Data source: EU, 2019]

The digital skills of teachers

Following a review of digital education policies, [Conrads and colleagues](#) (2017) proposed eight core-guiding principles for implementing digital education policies. Significant is the principle that policies are ineffective if the digital skills of educators are underdeveloped. Thus, strengthening teachers' skills through training is identified as key to success.

The [2019 European study](#) also found that 68% of primary students in Ireland had teachers involved in recent technology-related training in their own time. This compared to a high of 93% in Lithuania (EU average, 61%). While 72% of Lithuanian primary students were taught by teachers who participated in recent compulsory technology training, only 5% had in Ireland (EU average, 27%).

Another large international study ([TIMSS 2015](#)) showed similar findings for science-related training. Fewer Irish primary (12%) and post-primary pupils (36%) had teachers with recent training in integrating technology into science teaching than was found internationally (30% and 50% respectively).

Policy implications of technological innovations

A core-guiding principle of implementing digital education policies is that technology is a 'means to an end'. While mobile technologies can improve the learning environment of students, simply putting them in classrooms will not by itself improve learning opportunities.

The success of m-learning depends on the extent to which it is a meaningful part of everyday teaching practices. To achieve this, teachers need the skills and training necessary to fully use mobile technologies, both now and as they evolve into the future.



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