A qualitative study of the enablers and inhibitors encountered by primary school teachers preparing for the implementation of Digital Technologies in New South Wales

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The Digital Technologies (DT) curriculum was endorsed in 2014, as part of the national Australian curriculum, and this curriculum is compulsory for students from Foundation to Year 8. One of the main goals of the curriculum is for students to develop the skills they need to create and evaluate digital solutions. These skills include, but are not limited to, computer programming, computational thinking, and data representation. New South Wales (NSW) incorporated these skills into the K-6 Science and Technology syllabi in 2017 and added them to Technology Mandatory in Years 7-8.

Educational stakeholders have highlighted some of the issues arising for teachers who are implementing the DT curriculum, including the challenges involved when learning new concepts and skills they are unlikely to have encountered previously. However, there has been limited research on teachers' perspectives of their experiences implementing DT. It is important to understand what inhibits and enables teachers' implementation of the DT curriculum to inform the design of professional learning, school-led initiatives, educational policy and future research directions in this area.

In this context, during Term 2 of 2018, we ran a professional learning program for primary school teachers in NSW, a year before teaching DT became compulsory in this Australian state. Participating teachers (N=42) completed ten weeks of classes and associated learning tasks, surveys, and learning journals. At the end of the program, fifteen of them were interviewed about their experiences in the program and their preparation for teaching DT. We thematically analysed the interview transcripts, identifying 34 enablers and inhibitors that teachers encountered when planning for implementation of the DT curriculum. The identified enablers and inhibitors were subsequently grouped into nine categories: Technology, Curriculum, External and Extracurricular, Integration, Leaders, Peers, Students, Teachers and Time. The findings from our analysis show that teachers are likely to encounter different barriers and supports in the implementation of DT and that addressing challenges of implementation will require a range of solutions to be applicable to different contexts.

In this presentation, we will share our findings from this study, discuss how educational stakeholders, professional learning providers and teacher educators can support teachers implementing the DT curriculum, and discuss some future research topics and questions to explore in DT education.