Comparing professional learning programs in coding and computational thinking for K-6 teachers in New South Wales: Preliminary results

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In New South Wales, the new K-6 Science and Technology syllabus includes the Digital Technologies strand. The outcomes in this strand are focussed on the teaching of computing skills, such as algorithm design, visual programming and data representation. The NSW Education Standards Authority (NESA) encourages teachers to integrate these skills across the Key Learning Areas (KLAs) and, in 2016, they developed a guide to coding and computational thinking across the curriculum.

In 2018, as part of my doctoral research project, I developed professional learning programs to support K-6 teachers learn these computing skills and apply these skills in the teaching of a variety of KLAs. These programs were conducted face-to-face in weekly after-school sessions over a school-term, with additional support from researchers in the following term. One of the main aims of this research project is to find out whether teachers that participate in a professional learning program focussed on integrating computing skills with one KLA (Mathematics) learn and teach computing skills differently to the teachers that participate in a program that integrates computing skills across all KLAs. In this snapshot talk, I will share our experiences designing and running the professional learning programs and discuss the preliminary results from the research conducted during the programs.