Digital Technologies in the Australian Curriculum: Mathematics

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Digital technologies have been proposed as one potential solution to improve student engagement in mathematics in the middle years. However, the value of digital technologies as a tool for supporting engagement, as well as the degree of implementation remains dependent on teacher, leadership or school-specific motivations.

To reflect the growing significance of digital technologies in society and prepare students to prosper in a digital world (Nascimbeni & Vosloo, 2019), the Australian Curriculum has embedded digital literacy as a general capability. The aim of digital literacy is to support students to critically identify and use digital technologies, adapt to new ways of thinking and working mathematically and raise awareness of how students can protect themselves and others in digital environments (Australian Curriculum, Assessment and Reporting Authority (ACARA), 2021). Given the importance of digital literacy to society, it is anticipated there will be increasing emphasis on digital technologies in each future iteration of the Australian Curriculum.

In this presentation, we share findings from a content analysis examining the ways in which digital technologies are represented in the Australian Curriculum: Mathematics (AC:M). Language, location and context were analysed to identify intentions, assumptions and implications about digital technologies made within the AC:M. This content analysis was conducted on versions 8.4 (ACARA, n.d.-a) and 9 (ACARA, n.d.-b) of the AC:M to reveal changes in how digital technologies are being recommended to support teaching and learning in mathematics.

While this research is in progress, the preliminary findings indicate an increase in the use and variety of digital technology terminology in version 9. However, references to digital technologies are still limited in compulsory sections of the AC:M such as the content descriptions and achievement standards. It is likely that individual teacher choice and preferences are still major influencers in determining if and how digital technologies are used in mathematics.

References

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