

## **Digital technologies and children: Does more digital interactivity make for better learning?**

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In the last decade, there has been a shift toward the digitisation of learning and education. This has partly been fuelled by introduction of new digital technologies such as smartphones and tablets, which has resulted in the proliferation of digital media use across generations, from babies to the elderly. The shift has also partly been prompted by a belief that digital technologies are more interactive than non-digital ones, and that traditional methods of education are now outdated and passé. In this context, more interactivity is seen to be better – in that it is more engaging, more entertaining, and more fun – which has led both parents and educators to adopt the use of digital technologies and techniques such as the gamification of learning to engage young learners. The question is, does more digital interactivity make for better learning? To address this question, the concept of cognitive load is used in conjunction with a model of interactivity that was developed to visually map the dimensions of interactivity present in experiences. Three different learning experiences were selected for comparison: a printed worksheet, Mathletics (an online learning mathematics website used by many Australian primary schools), and Minecraft (a popular multi-player online video game that has been used by some educators to gamify learning). The results of applying the model of interactivity to the three chosen learning experiences are presented, as well as a discussion on what these results suggest about digital technologies, interactivity, and learning.