

Study reveals new digital divide among students based on triad of influences – self-efficacy, gender, and SES

New Australian Catholic University research has shown poorer school children like video games more and believe they have better digital skills than their socioeconomically advantaged peers.

The large-scale study of 613 students aged 7 to 10 found girls were particularly less likely to enjoy video games and digital activities as their socioeconomic status (SES) increased.

The Video Gaming and Digital Competence Among Elementary School Students study showed lower SES students thought their digital skills were better than those in the middle and upper SES categories, revealing self-rated digital skills decreased as SES levels increased.

Boys also rated their digital skills more highly than girls in each SES category in the study, which involved students from 21 Government and Independent Australian primary schools and was published in the journal *Learning, Media and Technology*.

Lead researcher Associate Professor Laura Scholes said the study focused on the impact of SES, self-identified sex, and self-reported self-efficacy – or a “triad of influences” – to determine their impact on students’ self-perceptions about digital technologies and gaming.

Associate Professor Scholes, of ACU’s Institute for Learning Sciences and Teacher Education, said her team was surprised by the findings that lower SES students enjoyed gaming and technology more than those from higher SES categories and that self-rated digital skills decreased as SES increased.

Lower-SES students rated their digital skills, including internet and social media usage and playing games, higher than those reported by students in middle and upper SES categories.

“We had hypothesised that higher SES students would have greater access to technology and would therefore indicate higher levels of enjoyment for digital technology and gaming and report higher levels of confidence in their digital skills than those in lower SES categories,” Associate Professor Scholes said.

“To find an opposite trend is worthy of further investigation to determine why enjoyment of digital technology and gaming as well as confidence in digital skills was not positively related to SES as we had expected.”

Associate Professor Scholes said gaming pedagogies such as game design, programming and coding should be used in classrooms to support learning and boost self-efficacy when it comes to digital technologies – particularly among girls.

“Understanding the impact of these influences is key to helping educators to support students with diverse digital competence and engagement,” she said.

“This study shows gender norms around engagement and self-efficacy are formed as early as 7 years of age, so if we want to promote girls’ involvement in digital technologies and gaming where females are often underrepresented, we must do more to remove these barriers from an early age.”

Associate Professor Scholes said the research showed gains could be made by differentiating educational interventions around digital technologies.

“Educators may need to scaffold some students, particularly higher SES girls who have less interest and lower self-efficacy in digital spaces. Whereas lower SES boys’ higher levels of interest and self-efficacy in digital spaces could be used to engage with digital pedagogies and advance learning across the curriculum,” she said.

To access the study: <https://doi.org/10.1080/17439884.2022.2156537>

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