

Game apps underestimate the motor skills of young children

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Research finds that most interactive games for tablets aimed at children between two and five years of age do not exploit the full range of their motor skills. This is the main finding of a study carried out at the Universitat Politècnica de València (Polytechnic University of Valencia, UPV), and published in the *International Journal of Human-Computer Studies* (subscribers only).

Javier Jaén, researcher at the UPV's [software engineering](#) and information systems research group (ISSI), tells us that the aim of the study was to "evaluate both the use and potential of interactive tablets in child education, as well as the characteristics of the interactive game apps currently available on the market."

Of the 100 [educational apps](#) analysed, all but one made use of the tap function as a means of interacting with the game, while 52% involved dragging objects across the screen. And that was it.

The team then conducted an experiment to find out what actions young children were capable of performing on a touchscreen. The results were conclusive: children can carry out more actions than expected of them in interactive game apps. With no assistance whatsoever, children were able to zoom in and out, and rotate objects with one finger. Actions that were slightly more complicated included the double tap, the long tap (tap and hold) and two-finger rotations. Sometimes this was related to their [motor skills](#), though on others it was simply a case of needing more time than the [game](#) allowed to complete the action.

"The conclusion of this study is that apps tend to underestimate the motor skills of young children, who are able to carry out the whole range of touchscreen actions from an early age," says Jaén.

He adds: "This means that much richer, more complex games can be made for [children](#). Sometimes, and this is the case here, technology lags behind the skills of our youngest members."

More information: Vicente Nacher et al. Multi-touch gestures for pre-kindergarten children, *International Journal of Human-Computer Studies* (2015). [DOI: 10.1016/j.ijhcs.2014.08.004](https://doi.org/10.1016/j.ijhcs.2014.08.004)

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