

Kids who play interactive video games have better motor skills

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(Medical Xpress) -- Deakin University health researchers have found preschoolers who play interactive video games, such as Wii, have better motor skills.

The researchers, in <u>collaboration</u> with a colleague from the University of Wollongong, conducted a <u>pilot study</u> of 53 pre-schoolers to see if there was an association between playing electronic games and the children's fundamental movement skills. The results showed that object control motor skills, such as kicking, catching, throwing a ball, were better in the children who played interactive games.

"This study was not designed to assess whether interactive gaming can actually develop children's movement skills, but the results are still quite interesting and point to a need to further explore a possible connection," said Dr Lisa Barnett, lead researcher on the study and NHMRC postdoctoral researcher with Deakin's School of Health and Social Development.

The study was conducted in 2009 and involved 53 children aged from three to six years. The physical activity levels of the children were monitored and movement skills assessed and their parents provided a report of the time spent playing interactive games (ie. the type played on Nintendo Wii/Eyetoy) and non-interactive electronic games (ie. games played on Nintendo DS/ Gameboy) in a typical week.

The researchers found that the children who spent more time playing



interactive electronic games were more competent in object control skills (ie. kicking, catching, rolling, and bouncing a ball), but there was no association with locomotor skills (ie. hopping, jumping, running). This finding was independent of the time children spent in physical activity. There was no link between playing non-interactive games and object control or locomotor skills.

"While we found that greater time spent playing interactive electronic games is associated with higher object control skills in these young children, we cannot say why," Dr Barnett said.

"It could be that these children have higher object control skills because they are playing interactive games that may help to develop these types of skills (for example, the under hand roll through playing the bowling game on the Wii). Playing interactive electronic games may also help eye-hand coordination. It may also be that children who already have higher object control skills tend to play interactive electronic games more.

"What our findings do point to is a need to investigate further to determine if playing these games improves object control skills or if children with greater object control skill proficiency prefer and play these games.

"It is important that we know this because children with better fundamental movement skills have been shown in my previous research to become fitter and more active adolescents compared to children who have poorer movement skills."

The results of the current study are published in the journal *Perceptual* and *Motor Skills*.

Study fast facts



- 53 children aged between 3 and six years took part in the study; more than half (31) were girls
- Participants came from the Healthy Active Preschool Years (HAPPY) study
- 35 per cent of the children played non-interactive electronic games
- 23 per cent played interactive games
- Six of the children played both interactive and non-interactive games
- <u>Children</u> spent an average of 183 minutes (3.05 hours) per week playing non-interactive games and 118 minutes (1.97 hours) playing interactive games
- Out of all the possible influences on a child's object control skill level, 12 per cent was associated with their time in interactive gaming
- There was no connection between locomotor skill ability and playing either interactive or non-interactive games

Provided by Deakin University

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