## Can video games help children at risk of dyslexia with reading?

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DYSLEXIA is typically diagnosed once children start learning to read in elementary school. But it is possible to identify children at risk earlier.



With this in mind, a French-Italian research team set out to determine whether playing video games could help overcome cognitive deficits associated with dyslexia in preschool children exhibiting such deficits.

To do this, the academics conducted an experiment with 20 preschool children, aged 5 to 6, 79 of whom were identified as being at risk of dyslexia. They divided them into four groups. The first group had to play the action video game 'Space Invaders Extreme 2' for 45 minutes, four times a week, for a month and a half, while the second group played a series of mini-games.

Children in the third group attended phonological training with a speech therapist, while those in the fourth group received no specific treatment. The effectiveness of the different experimental protocols on the children was assessed through tests measuring phonological awareness, phonological working memory and rapid naming abilities. It emerged that children who had played 'Space Invaders Extreme 2' were better able than others to break down spoken words into phonemes. They were much more phonologically aware than their peers.

Surprisingly, the researchers found that this phenomenon was still visible six months after the end of the experiment. They conclude that action video games like 'Space Invaders Extreme 2' had a lasting effect on children's phonological development.

Although this research has methodological limitations, it opens the door to new methods of intervention for children with learning difficulties, who may eventually become dyslexic.

Certain video games could help them improve the cognitive skills needed to acquire reading skills.