



Universidad de Granada

## **Study reveals attention training improves intelligence and brain function of children**

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Research news

Among children, the ability to control attention is crucial for intelligence and learning. For this reason, a group of researchers from the University of Granada have carried out a study to evaluate the influence of a computer-based attention-training intervention on the intelligence scores and brain functioning of a group of preschool-age children.

The study was conducted at the Mind, Brain and Behaviour Research Centre (CIMCYC) of the UGR and shows that children who took part in the attention-training intervention programme—delivered through a digital platform—improved their intelligence scores and brain function.

In addition, the study demonstrates that the beneficial effects of training on the brain and intelligence are greater when an educator helps the child to understand the training process. The original article has been published in the journal *Developmental Science*.

The training programme has been developed by researchers from the UGR, and consists of exercises based on types of activities that stimulate the brain areas responsible for the regulation and control of attention. These activities are performed on a computer or tablet, and require the participant to focus their attention and respond attentively to situations in which the dominant responses are not correct. Other exercises require them to memorise instructions and adapt to changing rules.



“The results of this research suggest that it is important to train attention from early childhood onward,” explains the lead author of the paper, María Rosario Rueda Cuerva, a researcher at the Department of Experimental Psychology at the UGR. Furthermore, they indicate that the most effective strategies are those in which the educator helps the child to reflect on his or her learning process. “By training attention we can improve the intelligence of children and prepare them for formal learning in school,” says the researcher.

**Bibliographic reference:**

Metacognitive scaffolding boosts cognitive and neural benefits following executive attention training in children

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