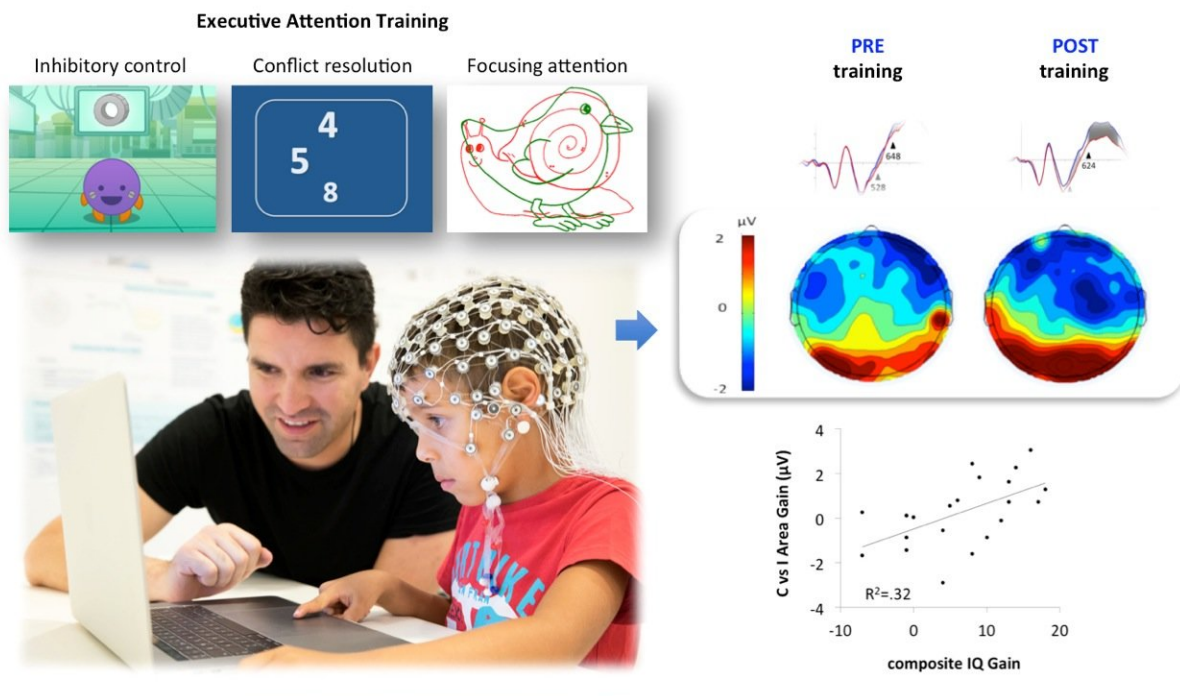


Attention training improves intelligence and functioning of children's brain

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Graphical abstract. Credit: University of Granada

Being able to voluntarily regulate our attention is crucial for mental processes such as intelligence and learning in children. Therefore, a group of researchers from the University of Granada, Spain (UGR) have carried out a study in which they evaluated the influence of a computer-based attention-training intervention on intelligence scores and brain

functioning on a group of pre-school age children.

The study was conducted at the Mind, Brain and Behavior Research Center (CIMCYC) of the UGR, and the results shows that children who took part on the attention-training intervention delivered through a [digital platform](#) improve their intelligence score and [brain function](#) related to attention control.

In addition, the study shows that the [beneficial effects](#) of training in the brain and intelligence are greater when an educator implement a coaching strategy design in order to help the child to understand their training process. The original article has been published in the journal *Developmental Science*.

The [training program](#) has been developed by researchers from the UGR, and consists of exercises based on experimental paradigms that activates brain areas responsible for the regulation and control of attention. These are activities that are performed on the computer or tablet, and requires focusing attention and respond attentively to situations in which the dominant responses are not correct. Other exercises require keeping the instructions in memory and adapting to changing rules.

"The results of this research suggest that it is important to educate attention from [early childhood](#)," explains the lead author of this work, the researcher at the Experimental Psychology Department of the University of Granada María Rosario Rueda Cuerva.

In addition, they indicate that the most effective strategies are those in which the educator helps the child to reflect on his or her learning process. "Through the education of attention we can improve the intelligence of children and prepare them for formal learning in school," says the researcher.

More information: Joan Paul Pozuelos et al, Metacognitive scaffolding boosts cognitive and neural benefits following executive attention training in children, *Developmental Science* (2018). [DOI: 10.1111/desc.12756](https://doi.org/10.1111/desc.12756)

Provided by University of Granada

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