

“Brain Training” vs. Cogmed

In the 1990:s, neuroscientists realized that, unlike what had been commonly thought, the human brain keeps developing throughout life, making new neural connections and pruning old ones. They also discovered that, under the right conditions, the brain responds well to training, and can improve its capacity to process information and pay attention, even for people well past their middle age.

This gave rise to a whole range of programmes, apps, and video games, claiming to “reduce your mental age” or “increase your intelligence”. Some of them were widely used and appreciated by their users, but most of them had one thing in common: they only improved your performance on the specific games that users practiced, while those benefits rarely transferred to other, more useful tasks¹.

It was tempting to draw the conclusion that “it is not possible to train your brain after all.” Now, if that was the end of the story, it would be a tragic loss for humanity, because we know that it is in fact possible to train parts of your brain, in ways that increase your cognitive capacity. It is just a bit more difficult than playing a simple video game. Here are some of the important aspects differentiating Cogmed from the brain training apps and games you might have come across:

Typical “Brain Training” app	Cogmed
Wide claims of benefits, with no or only weak scientific evidence to back them up	Specific claims of benefits, based on clear and repeated scientific evidence published in more than 100 peer reviewed articles ²
Stand-alone app or game, where the trainee is left on their own	Integrated method including continuous coaching by a licensed professional
Created by a corporation and optimised for app sales and profit	Created by doctors and neuroscientists, optimised for growing specific cognitive capabilities with long term effects
Vast majority of users drop out during the first week	Coaching and support helps the user to successfully complete the programme
Training tasks are fun and feels like playing video games or solving crossword puzzles	Training tasks are carefully designed to influence precise regions of your brain, and are therefore rarely as fun as a game designed just to entertain
Training tasks feels easy to complete once you get the hang of them	Tasks are dynamically adjusted to your performance, so that you constantly need to expand the right level of effort to make the desired gains

¹ As an example of such excessive claims, makers of popular “brain training” app Lumosity were found to have deceived their users and were fined \$2 000 000 in 2016 <https://www.scientificamerican.com/article/u-s-cracking-down-on-brain-training-games/>

² Research summarised here: https://download.cogmed.com/claims_and_evidence
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