

Q: Did the participants understand what each strategy represented, so that they all had the same concept on the answers they were giving?

A: The simple answer is no. Each participant described how they completed the task in their own words and then these were recorded verbatim and categorised by researchers into strategy types. For example, for someone categorised as using a rehearsal strategy may have said something like 'I repeated the numbers in my head'.

Q: What is the semantic strategy again? Thank you

A: A semantic strategy is simply when the user makes the to-be-remembered information more meaningful to them. For example, I worked with one participant that remembered a string of digits as scores on a computer game.

Q: Is there evidence that these gains are maintained and transferred to other learning situations?

A: There is some evidence that gains in working memory might transfer to other tasks (see <http://www.cogmed.com/published-research> for examples), but there is nothing that is found on a consistent basis. For example, the post-training gains in a maths test found in Holmes, Gathercole & Dunning (2009) were not found in the same maths task used in Dunning, Holmes & Gathercole (2013). Gains in working memory seem substantial and robust but there is work to be done to show gains in other areas on a consistent basis.

Q: Do you think training needs to be repeated at regular intervals to prevent individuals reverting to earlier strategies?

A: We know that the effects of Cogmed on working memory are still mostly retained up to 12 months later. So if we attribute the gains in working memory to strategy use then we have no reason to believe that participants are reverting back to earlier strategies. However, we can't know for sure so you do make a very valid point. This is something that we would hope to look into some day.

Q: wouldn't it make sense to give people the strategies they need that is telling them how to chunk, rather than let them come with it on their own.

A: That is a really sensible suggestion and one that we intend to explore. The strategy study we ran previously was to see if individuals spontaneously created strategies following training. As it seems that they do it makes sense to offer more direct strategy training alongside Cogmed.

Q: Can a child perform better in Maths but not so well in English if he has working memory deficits?

A: Definitely. Not all children with poor working memory have the same profiles. Our best guess as to why this is, is that some develop idiosyncratic strategies that enable them to offset their working memory impairments in a particular area.

Q: I also have a child in school who has undertaken Cogmed in the past (whilst living overseas), her parents feel that no difference was made...She still has working memory difficulties and doesn't appear to have developed any major strategies. Where do we go from here?

A: Cogmed isn't for everyone of course; I think that it benefits about 80% of those that go through the program. This means that 1 in 5 don't experience a benefit. My best suggestion is to instruct your child to do obvious things like break instructions down into smaller parts and to write things down more often. There is a book that explains these methods nicely, it's called 'Working Memory and Learning - a practical guide for teachers' and it's by Susan Gathercole and Tracy Alloway. There is another free guide that you might also find useful called 'Understanding Working Memory'. Here is the link to it: <http://www.mrc-cbu.cam.ac.uk/wp-content/uploads/2013/01/WM-classroom-guide.pdf>