



wee Science

Thank you for visiting us at the Wee Science Lab and taking part in our study! We had a lot of fun playing games with our young scientists and are very grateful for their help with our experiments. We have now finished collecting data and started our analysis. We'd love to tell you about what we found!

First, a recap...

In this study we were looking at the most effective way to train memory and attention in children. We tested this by asking our participants to play memory games and checking how their performance changed from the beginning to the end of the experiment. All the children met our lab dragon Pim, but Pim asked different questions depending on what group they were in.

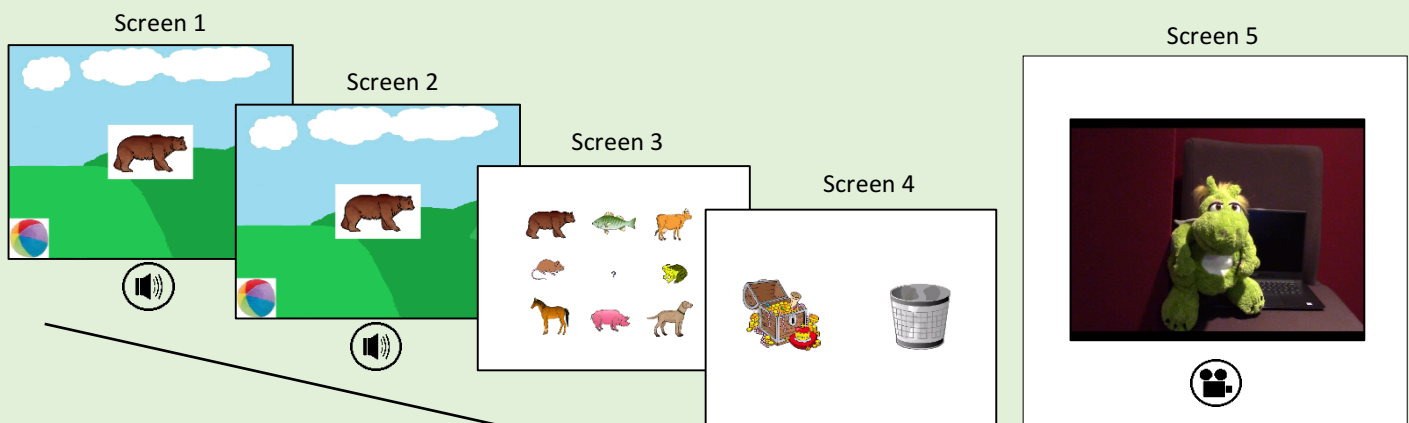
My name is Pim!



Metacognition group: Pim asked half of the participants questions about the rules of the games and whether they had any tips or tricks on how to play better. Getting children to reflect on their own performance during a challenging task was the main feature of this condition. Children were also asked to click on a treasure chest if they thought they had completed their previous go correctly and the rubbish bin if they thought they had done it incorrectly, to promote monitoring.

Creative group: Pim asked the other half of our participants questions about things other than the computer game. For example, Pim asked about their favourite computer game and for advice on drawing a picture. This condition gave children a creative break from the game, and did not focus on reflection on performance.

The Animal Game



The picture above shows how our Animal Game worked, one of the memory games we played in the lab.





THE UNIVERSITY of EDINBURGH
School of Philosophy, Psychology
& Language Sciences



Science



Our results

We had two age groups in our study: 4-5 year olds and 8-9 year olds. Our results indicate that the older children that reflected on their performance during the memory games showed greater improvement during the training than the older children that had the creative breaks. This indicates that becoming aware of how you think might improve memory and attention performance, and thus that training in self-reflection could also be helpful for attention-demanding tasks more generally.

Future directions

The next steps for our research team are to scale up the study by visiting children in schools. The aim is to meet each child for multiple sessions to test the effectiveness of a larger-scale intervention, which we hope will help children reach their cognitive and academic potential.

Thank you!

Thanks again to all our young scientists for visiting us in the lab and helping us with our research! Without you, none of this would be possible.

Hope to see you in the Wee Science Lab again soon!

The CALS Team

Anna, Jack, Julie-Anne, Lauren, Bonnie, Candice, and Nic

