

## University of Manchester project: Retrieval practice in Down syndrome

Dr Kelly Burgoyne, Dr Laura Boundy, Emily  
Croft



### Dear families,

We hope that you have been keeping well. You may remember a year or so ago, you were involved in a research project run by the University of Manchester which looked at the effects of retrieval practice on word learning in both typically developing children and children with Down syndrome. Thank you so much for your support with this. We wanted to get in touch to give you an update on the findings of this project.

### What were the aims of the project?

Retrieval practice, or the act of recalling and producing information during the learning stage, has been found to be an effective learning tool for retaining information, including long-term word learning. The benefits of this learning strategy have been found in typically developing children and children with language delays, but has not been tested in children with Down syndrome. As children with Down syndrome can display delays in their language learning, we wanted to examine whether retrieval practice has similar benefits on word learning for this group of children, compared to another learning method (restudy).



### What was my child asked to do?

The study took place online and involved 4 sessions over Zoom. Participants took part in word learning sessions where they learned 6 new words and information linked to the word (e.g. what it 'liked'). For 3 of these words they were asked to retrieve the information multiple times during learning, and for the other 3 words they heard the word multiple times and had to 'study' it. In different online sessions they were then tested on their recall of these words and the information linked to the words, and we analysed their scores.



### What were the findings of the study?

Findings showed that children with Down syndrome benefit from retrieving (producing) words during learning, as children were able to more accurately recall words in the retrieval learning condition compared to restudy. This accurate recall was also maintained when children were tested one week later. Children also recalled more information linked to these words (i.e. what it 'liked') when the words were learned through retrieval compared to the restudy learning condition. Typically developing children also showed benefits of retrieval on recalling the words, but no benefit for learning the additional 'likes' information. These findings suggest that retrieval practice is an effective learning strategy for word learning in children with Down syndrome.

### What are the next steps?

We have written up an academic research paper with the results of this study and it is currently being reviewed for publication in an academic journal. When we have the results of this we will update you, along with any links to the published paper.