SEND and Maths working group, BSRLM conference (13.06.25)

There were 11 participants in this session, which focused on the impact of ADHD on mathematical learning. During the session two doctoral students, Rita Pescetelli (UCL) and Rene Hartmann (St Mary's University), shared their initial findings.

Rita works with students in an 11-16 alternative provision. She has been exploring the impact of ADHD on students' abilities to solve GCSE word problems. Students were given problems with and without numbers, in order to explore the different approaches they used to solve word problems. Rita reported on a range of initial findings. One significant observation is that students with ADHD often find that the language of GCSE word problems obscures the mathematics. Students also reported that they often lose track of their thinking during the problem solving process, which makes it easy for them to get distracted and/or miss important bits of information. One student in Rita's study used LEGO to solve problems when more abstract methods failed. In addition, often the GCSE mark schemes themselves mean that students with ADHD cannot get full marks, because they struggle to keep track of their thinking during problem solving process. This is a social justice issue.

René's study is with undergraduate trainee teachers with ADHD. Contrary to previous conceptions, the students in her study did not find the mathematics particularly difficult. René suggested that this is because these are students who have been quite successful in their academic studies, after all they are in university. However, when they did have difficulties, this tended to be with word problems. The key finding discussed in these initial findings related to the role of manipulatives in mathematical learning. The trainee teachers with ADHD found that manipulatives not only helped them to solve problems, but also helped with explaining the mathematical concepts to their students. This highlighted the significant role of manipulatives as a tool to explain thinking, when verbal articulation is more challenging.

After the presentations, the audience was particularly interested to discuss the importance of manipulatives for both students and teachers with ADHD, especially to support with word problems. We discussed the challenges for students with ADHD of keeping track of their thinking, and how this makes school learning particularly challenging. We also explored the different ways in which it might help students who are neurodiverse to have a neurodiverse teacher.