Project title: Mathematical problem solving of Autism Spectrum Disorder students in upper secondary education and the role of feedback-seeking and self-regulated learning strategies

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Problem description
The goal of this study is to better understand and improve mathematical problem-solving (MPS) of students with Autism Spectrum Disorders (ASD), in particular in terms of their feedback-seeking (FS) and self-regulated learning (SRL) skills; and to observe the differences (in MPS, FS and SRL) between ASD and neurotypical students (i.e. non-ASD students). We want to investigate the problems that ASD students experience with MPS in upper secondary education, and to design and evaluate an intervention that addresses these problems.

Whilst MPS has been widely researched with neurotypical students, the process of MPS and in particular the associated FS and SRL skills have rarely been investigated in the autistic population. MPS is generally seen as an active and constructive process, where learners take control and agency over their own learning and problem-solving activities. However, as ASD students typically have weak executive functions, this is likely to cause difficulties in self-regulating their learning processes. Moreover, ASD students are known to have impairments in social interaction and communication, which may reduce their FS and interpreting.

Research question
How can mathematical problem-solving of students with Autism Spectrum Disorders in upper secondary education (havo/vwo bovenbouw) be improved by enhancing their feedback-seeking and self-regulated learning strategies?