

Título de la Conferencia: **Developmental dyscalculia and mathematics anxiety: Large population studies**

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I will review our recent projects which examined a cognitive mathematical deficit (developmental dyscalculia) and an emotional block of mathematical performance (mathematics anxiety) in children. First, in a large study (n=1004) we have contrasted several theories of developmental dyscalculia, and found that it was related to weak visuo-spatial memory and weak inhibition skills. In a follow-up study (n=1800) we found that mathematics anxiety was negatively associated with mathematical performance. Most importantly, developmental dyscalculia and mathematics anxiety showed strong dissociation. This suggests that cognitive and emotional blocks of mathematical development need different interventions. Girls were especially prone to developing mathematics anxiety in various countries (Italy, Colombia). I will point to the educational and practical relevance of our studies.