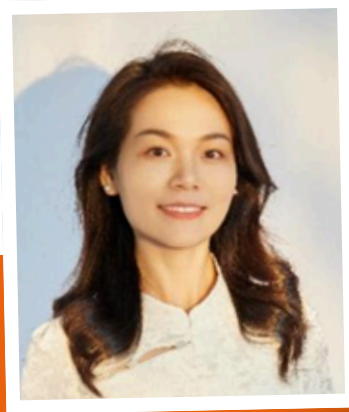




Comorbidity of Dyslexia and Dyscalculia: Cognitive-Neural Mechanisms and Interventions

Professor Yang Xiujie

Faculty of Psychology
Beijing Normal University



June 3, 2026 (Wednesday)

12:45 - 14:00

Room 401-402, Meng Wah Complex, HKU

Chair: Professor Zhang Xiao



Registration

Abstract:

This segment delves into the frequent co-occurrence of specific learning disabilities in reading (dyslexia) and mathematics (dyscalculia). It focuses on unraveling the shared and distinct cognitive and neural mechanisms that underlie this comorbidity. Key inquiries address: Do these co-occurring difficulties stem from impairments in symbolic processing, working memory, or phonological and magnitude representation? What do neuroimaging studies reveal about the brain networks that might be atypically developed or connected in children with both conditions? This research aims to bridge the gap between neurocognitive science and educational practice, informing the design of more precise and effective assessment and intervention strategies for children with complex learning profiles.

About the speaker:

Yang Xiujie is an Associate Professor in the Faculty of Psychology at Beijing Normal University. She is interested in Covariation of Reading and Mathematical Development, Children's Cognitive Development and Learning Difficulties, and Brain Plasticity. She has published over 80 academic papers, such as the *Developmental Science*, *Journal of Educational Psychology*, *NeuroImage*, and *Learning and Instruction*. She currently serves as an editorial board member for *Cognitive Processing*, *Infant and Child Development* and *PsyCh Journal*. Professor Yang has been recognized with several prestigious honors, including the Young Talent Promotion Project by the China Association for Science and Technology, the BNU Distinguished Scholar Award, and the Zhongying Young Scholar Award. She also serves as the Deputy Director of the Beijing Key Laboratory of Applied Psychology, and received the Mid-Career Award from the Association for Reading and Writing in Asia in 2024.