

Special Guest Lecture & Short Talks

SPECIAL GUEST LECTURE

Prof. Milene Bonte

Cognitive Neuroscience of Language and Literacy Development, Faculty of Psychology and Neuroscience, Maastricht University

Can dynamic learning trajectories of symbol–sound association predict children's reading aptitude?

Children's learning rates and achieved reading levels are highly heterogeneous, and it remains unclear how underlying deficits and strengths result in this heterogeneity. Consequently, the timely identification of children in need of reading support remains challenging. Current static tests of reading precursors (e.g., letter knowledge, phonological awareness) do have predictive value but are inherently biased by factors such as home literacy environment. We leverage EEG, fMRI, and gamification to investigate if dynamic learning trajectories (letter-symbol/sound associations effectively differentiate 5–6-year-old kindergartners' aptitude for reading. Our preliminary EEG data differentiate learners based on their responses to distinct feature-temporal brain responses to learned symbol-sound pairs. Children with/without family risk of dyslexia show no learning differences but those at risk show lower phonological awareness scores. Game-based learning data and static tests further show a clustering of children according to four distinct latent performance profiles. In ongoing longitudinal analyses, we quantify how these learning and static measures predict children's reading development. Project outcomes will be used to develop a digital learning game to improve early prediction and prevention of reading problems.

SHORT TALKS

Dr. Iliana Karipidis

Using individual differences in short-term audiovisual learning as a precursor of literacy skills

We present data of a short, dynamic audiovisual correspondence learning task in pre-reading children with diverse language backgrounds, collected in the Zurich Learning Progress (LEAPS) study. We discuss which aspects of short-term learning variability can be used to improve prediction of later variability in literacy skills, in particular within multilingual learners.

Carmen Providoli

Linking multisensory learning dynamics, neural processing, and variability in language skills.

We present data from an fMRI study investigating multisensory (audio-visual, visuo-tactile) associative learning in children with varying language abilities. We examined how learning dynamics and related brain responses differ across multisensory conditions and how they are associated with language abilities.

WHEN

23.09.2026 · 09:15 - 11:30 AM

WHERE

Psychiatrische Universitätsklinik Zürich

Kinder- und Jugendpsychiatrie und Psychotherapie
Mehrzweckraum, Neumünsterallee 3, 8032 Zürich

ORGANISED BY

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