Early indices of language-related impairments and their amelioration

This project aims at determining the neural basis of developmental disorders such as dyslexia or autism spectrum, finding early neural markers predicting future learning deficits, and assessing the effects of intervention programs. For this follow-up project, over 170 preschool children were investigated with extensive neuropsychological and language test batteries and with neural-activity recordings. Currently, the outcome at school and its connections with the neural and behavioural measures acquired in kindergarten are being evaluated.

The prevalence of learning impairments is high, for example, for dyslexia the reported range is 5-17%. Furthermore, problems in learning or acquiring skills vital for learning such as reading, have long-standing effects on the individual's life. Early identification and intervention of these impairments would diminish learning difficulties and motivational problems, improving school outcome. This project aims at finding means for this early identification and intervention, as well as at understanding the neural basis and its plasticity in learning deficits and their amelioration.

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The aims of this project are consistent with the declaration of GraphoWorld, which is Language/Literacy Network of Excellence providing non-commercial technology enhanced support to all learners globally (http://grapholearning.info/graphoworld). This international network includes distinguished scientists specialized in learning, learning impairments, and intervention.

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