

## **The writing-reading interconnection and their early predictors among native Arabic-speaking children**

*Afnan Khoury-Metanis, PhD student. Supervisor: Prof. Asaid Khateb*

**Research topic:** The subject of my research is the writing-reading association and the contribution of early preschool writing measures to later literacy skills in Arabic-speaking children.

**Why is my study unique?** The current literature on the interconnections between early writing and reading development and their early predictors is largely limited to studies conducted in English or a handful of other Western European alphabets. Studying literacy acquisition in non-European languages and non-alphabetic writing systems such as Arabic is essential for a complete science of reading and writing. This will be the first study of its kind and will lay the foundations for the first model of early writing development and assessment in Arabic.

**Analyses and findings:** The first two phases (kindergarten and 1<sup>st</sup> grade) of the Safra longitudinal project included multiple measures of writing collected from the entire sample, as well as additional in-depth measures collected from a sub-sample of 300 children. The question we address is to what extent do writing measures (fine motor coordination, graphomotor skills, and orthographic knowledge) contribute to later formal reading and writing skills. The correlations between all preschool variables were statistically significant and moderate to large. Preliminary analyses conducted on the subset of 300 kindergarteners revealed that all writing tasks (name writing, copying letters, and writing dictated letters) and pure copying (immediate copying of unfamiliar symbols – Chinese characters, and delayed copying of a familiar script – high frequency Arabic words), loaded onto a general factor that explained 40% of the variance. Further, three tasks tapping fine motor coordination loaded onto a second factor (i.e., manual dexterity, functional dexterity, and the invented letters task - ILT) that explained 13% of the variance.

**Relevance for Educational Practice** Building stronger knowledge about the interrelationships between fine motor, graphomotor, and orthographic skills and their links to later writing and reading abilities will allow early identification of writing (and reading) difficulties at school entry when writing demands increase in complexity and intensity.