Profiles of early language impairment among Arabic-speaking kindergarteners

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Research topic: My research focuses on language impairment and early reading development among Arabic-speaking children. This project, which builds on the longitudinal research project of the Safra Center, focuses on the early identification of children with different subtypes of developmental language disorders (DLD) and the impact of their language difficulties on reading development. During the last two years, data was collected from a large sample of kindergarteners who were followed this past year into 1st grade, and who will be re-tested in 2nd grade.

Why is my study unique? This is the first study anywhere in the world to look at profiles of language impairment in Arabic in a large population-based (non-referred) sample of young Arabic speaking children. I will also be looking at the subgroups' reading development (1st and 2nd grades) to examine whether they exhibit different patterns of difficulties in reading.

Findings and analyses underway: Consistent with Bishop and Snowling (2004), as well as prior work in Hebrew by Carmit Shalev-Leiffer (also at the Safra Center), a factor analysis of the kindergarten data showed that all morphological, syntactic, and vocabulary tasks loaded onto one general factor (labelled non-phonological linguistic skills) and the three tasks tapping phonological awareness loaded onto another (phonological skills). We then used this dual classification system to examine profiles of language impairment. Four profiles emerged: Poor-Language – PL (i.e., non-phonological skills) (9.6%), Poor Phonology (13.6%) (PPh), Poor Language *and* Poor Phonology (PLPPh) (12.1%), and Typical (unimpaired) Language and Phonology, (TL-TPh) (49.1%).

Means Scores of Different Domains Across Group
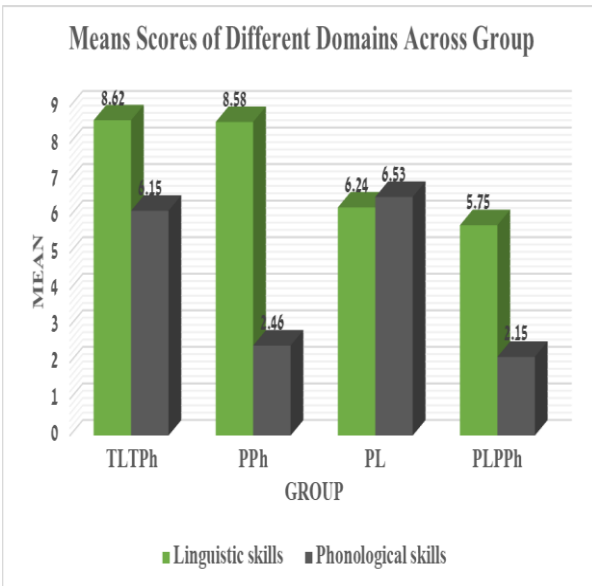
This figure shows that: i) children in the PL and PLPPh groups exhibited the lowest means in the non-phonological linguistic domain compared to children in the TLTPh and PPh groups, and ii) children in the PPh and PLPPh groups exhibited the lowest means in the phonological domain compared to children in the TLTPh and PL groups.

Relevance for educational practice The comparison between these profiles suggests that the phonological vs. non-phonological classification scheme might be a suitable method for purposes of screening before the start of reading instruction. The validity of these linguistic profiles in kindergarten is likely to increase the fidelity of linguistic interventions for children with DLD and children at risk of reading impairments, many of whom are also language impaired.