
Using LITMUS tools with Bilingual 5- to 8-year-old children in France

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Abstract

We propose to report on the results of a comparative study designed to test the usefulness of several language impairment testing in multilingual settings (LITMUS) tools in identifying specific language impairment (SLI) in bilingual children and thus in distinguishing bilingual children with SLI (Bi-SLI) from bilingual children with typical development (Bi-TD), in France. Children were evaluated with standardized language tests in both of their languages, and with the following experimental protocol: a nonword repetition task (LITMUS-NWR-French), a sentence repetition task (LITMUS-SR-French), and Executive Function (EF) tasks (Digit Span, Mr. Peanut, Hidden Mouse, and Card Sorting) (see Armon-Lotem et al., to appear). Spontaneous language samples were collected from each child, in both languages, via the Multilingual Assessment Instrument for Narratives (LITMUS-MAIN). Parents were interviewed via the Parents of Bilingual children Questionnaire (PABIQ). The bilingual children, who were aged 5-8, and who had all been exposed to both French and either Arabic, Portuguese or Turkish, were recruited in ordinary schools, in centers specializing in diagnosis of language impairment, and in private SLT practice. Children were assigned to Bi-SLI and Bi-TD groups on the basis of scores from the standardized tests in both of their languages using impairment cut-offs adapted to take into account bilingualism and language dominance (Thordardottir, to appear), giving rise to a group of 42 Bi-TD children and 17 Bi-SLI children (data for 15 additional bilingual children, currently being processed, will also be included). Age-matched monolingual controls included 15 children with SLI and 38 TD children. Scores from the 42 Bi-TD and 17 Bi-SLI children give very encouraging results, with nearly all Bi-TD children scoring above 60% in SR and above 80% in NWR, and nearly all Bi-SLI children scoring below these cut-offs. As a group, the Bi-TD children had significantly higher global scores (% identical repetition) for SR and for NWR than the Bi-SLI children did. Significant inter-groups differences were also found for each sentence type tested in the SR task and for both Language Independent and Language Dependent items in the NWR task. Moreover, over-lap in scores between the two groups was minimal for both of these tasks, which were correlated with each other, and with measures of risk factors for SLI

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obtained from the PABIQ. Interestingly, and as predicted, performance on NWR did not display any differences between L1 language groups. While such differences did arise for SR, these appear to be a result of differences in exposure to French. Over-lap in scores on three EF tasks (Card Sorting, Mr. Peanut, and Hidden Mouse) was considerable, while Forward Digit Span scores separated the two groups with minimal over-lap (and correlated with both SR and NWR). The cases of apparent over- and under-identification of SLI resulting from use of this protocol will be discussed in terms of the reliability of the standardized tests and score cut-offs used to determine group assignment, as well as what might constitute minimum exposure for reliable use of SR.

Armon-Lotem, S., de Jong, J., and N. Meir (eds.) (to appear). Language impairment testing in multilingual settings. Bristol, UK : Multilingual Matters.

Thordardottir, E. (to appear). Proposed diagnostic procedures for use in bilingual and cross-linguistic contexts. In S. Armon-Lotem, J. de Jong, and N. Meir (eds.), Language impairment testing in multilingual settings. Bristol, UK : Multilingual Matters.