

LITMUS-SR-B: A sentence repetition task in Basque to identify Basque-Spanish bilinguals with DLD

The usefulness of LITMUS-SR task, a tool designed within COST Action IS0804 to distinguish bilingual children with DLD (Bi-DLD) from bilingual children with typical language development (Bi-TD), has been reported on different language versions of the task (a.o. Ibrahim & Hamann, 2017; Tuller et al. 2018). Recently, a Basque version of LITMUS-SR has been created (i.e. LITMUS-SR-B) (Etxeberria et al. in prep) to identify DLD signs among Basque bilinguals. Driven by the urgent need for an accurate screening tool for the identification of DLD among Basque speakers, this study aims to explore if LITMUS-SR-B distinguishes Basque-Spanish bilingual children with DLD from TD children. A total of 42 simultaneous and sequential L1-Basque L2-Spanish children aged 7-10 years participated in this study: a clinical group of Bi-DLD (n=5) and a Bi-TD group (n=37). All participants were administered the Basque adaptation of the PaBiQ parental questionnaire (HEGA) (Pourquié et al. 2024) as well as LITMUS-SR-B (Etxeberria et al. in prep). The HEGA fulfilled a two-fold purpose in this study: first, it checked that all participants were Basque-Spanish bilinguals with L1 Basque; second, it ensured that participants have had consistent and uninterrupted exposure to Basque. LITMUS-SR-B consists of a battery of 58 sentences, with several levels of complexity based on the type and number of syntactic operations involved in their production. In this study, for each Bi-DLD participant, an age-match Bi-TD control group was formed and performance was assessed by “identical repetition” and “target structure” measures. Following previous studies (a.o. Hamann & Ibrahim, 2017), phonological errors were disregarded for identical repetition. Meanwhile, together with lexical errors, this study disregarded ergative case marking errors for target sentence, since this is a prevalent morphosyntactic error for many Basque speakers (Huarte, 2022). Results showed that Bi-DLD participants produced fewer correct sentences than their age-matched counterparts both in identical repetition and target structure measures (see Figure 1). This was attested when comparing Bi-DLD participants’ scores with the mean obtained by their Bi-TD group, and when comparing the Bi-DLD participants with each child from their control group individually. The difference in the scores is more evident in the identical repetition measure, since being 58 points the maximum attainable, Bi-DLD children scored 17, 19, 21, 14 and 14 points less than the mean obtained by their respective control group (see Figure 2). Thus, being 17 points the mean of the difference in the points scored by Bi-DLD participants and Bi-TD groups, the Bi-TD groups outperformed their respective Bi-DLD participants by having on average 29-30% more correct answers. In sum, this study suggests that LITMUS-SR-B is a useful material to distinguish L1 Basque Bi-DLD from Bi-TD children in the 7-10 age range. Bi-DLD participants scored lower than their control participants in all age groups attesting the biggest difference when identical repetition was measured. Given the small size of the sample, no statistical analysis was conducted. Thus, this research paves the path for upcoming studies with a bigger participant sample which may allow to analyse if the observed difference between Basque-Spanish Bi-DLD and Bi-TD results is statistically significant.

Figure 1. Identical Repetition and Target structure scores (%): Bi-DLD vs. Bi-TD control group

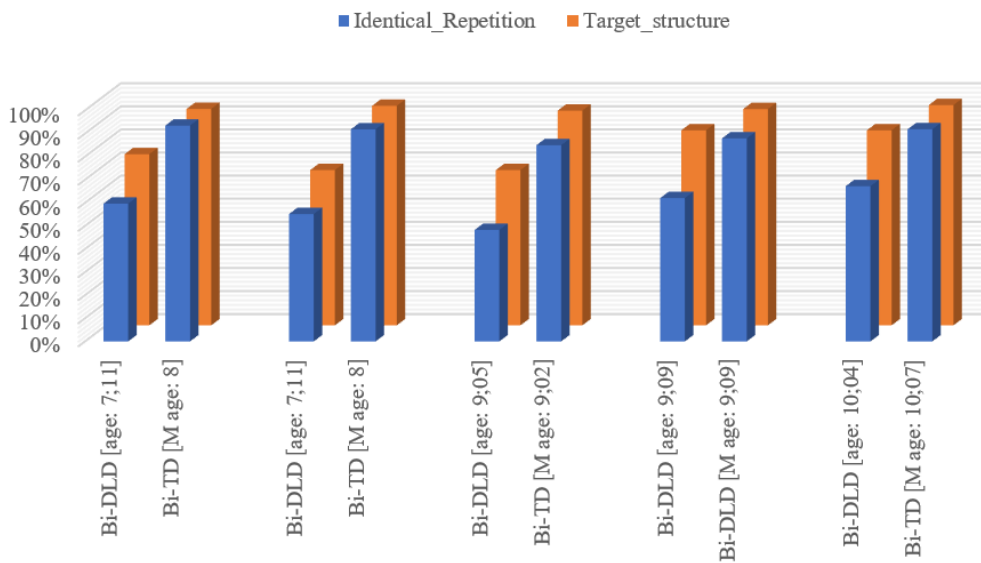
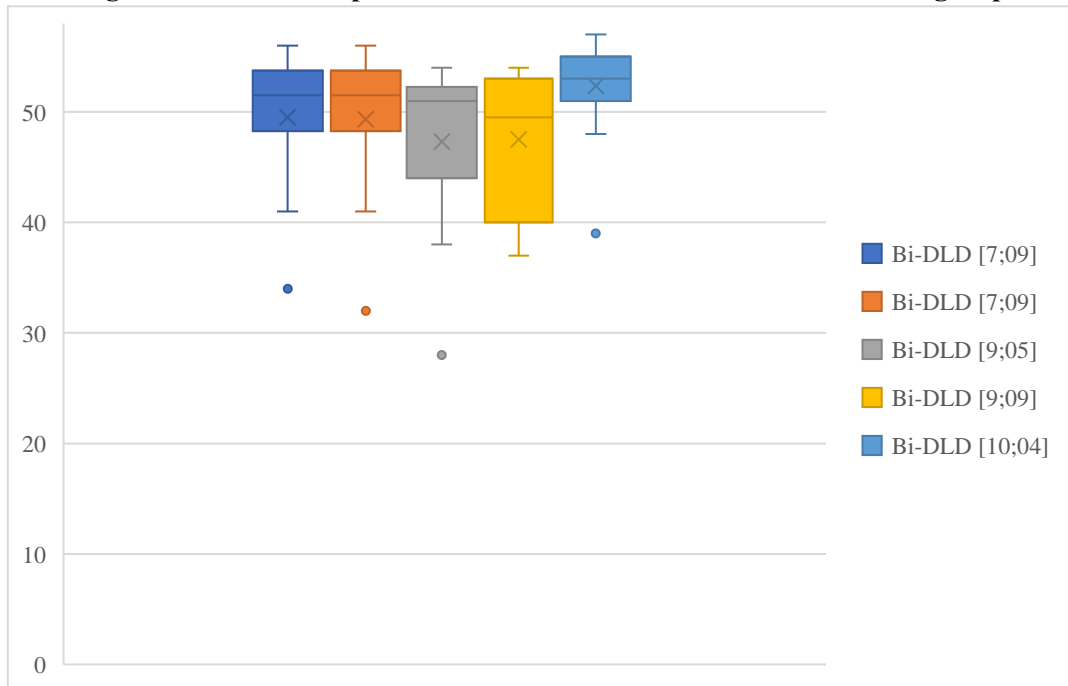


Figure 2. Identical Repetition raw scores: Bi-DLD vs. Bi-TD control group



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