

Dosage factors influencing change in referential and inferential language (RIL) following receipt of Launch to School (L2S): a pre-literacy intervention for preschoolers with communication disorders

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Inferential language skills are key predictors and features of reading comprehension. Children with Developmental Language Disorder (DLD) have difficulties with inferential language and there is some evidence referential and inferential language (RIL) interventions can improve these skills. Intervention dosage - the intensity and type of teaching moments (dose), how massed or distributed the intervention is (dose intensity), children's attendance frequency and length of time of the session (dose frequency) are also known factors that can impact intervention outcomes. The influence of these dosage elements on RIL outcomes has yet to be explored in interventions for preschoolers with communication impairments.

This study explores the impact of L2S intervention dose elements on the RIL gains made by children with and without DLD.

Launch to School (L2S) is a multidisciplinary, group based, pre-literacy intervention targeting language, code (e.g. phonological awareness) and fine motor skills. L2S targets a range of language goals such as improving complex syntax, as well as RIL. RIL is targeted explicitly in shared book reading in every session. Delivered in eight, two-hour sessions over two possible intensities: weekly (distributed) and daily (massed), the programme is designed for children with pre-literacy vulnerabilities.

A clinical caseload of 129 preschool children: 87 with DLD and 42 non-DLD (speech sound disorder and or fine motor impairments) participated in L2S with complete RIL outcomes measured pre, post and follow-up. The cumulative impact of dose frequency (attendance hours) and mean dose of trained therapy techniques used by clinicians/minute of book reading as well as dose intensity (weekly / daily) was explored with three factors controlled: age, entry language skills, and bilingual status. The relationships between improvements in RIL outcomes and dose will be explored in multilevel regression models.

We hypothesise the referential and inferential trajectories of change will be influenced differently within and between DLD and non-DLD groups, and over time. Preliminary model testing (see figures 1-3) indicates dose factors influence the RIL outcomes directly following intervention and over time. This study will provide insights into dose factors which can be manipulated to enhance referential and inferential intervention outcomes for children with communication disorders.

Figures 1 & 2: Dose (frequency of therapeutic techniques used / minute by clinicians) and referential and inferential gain pre to post

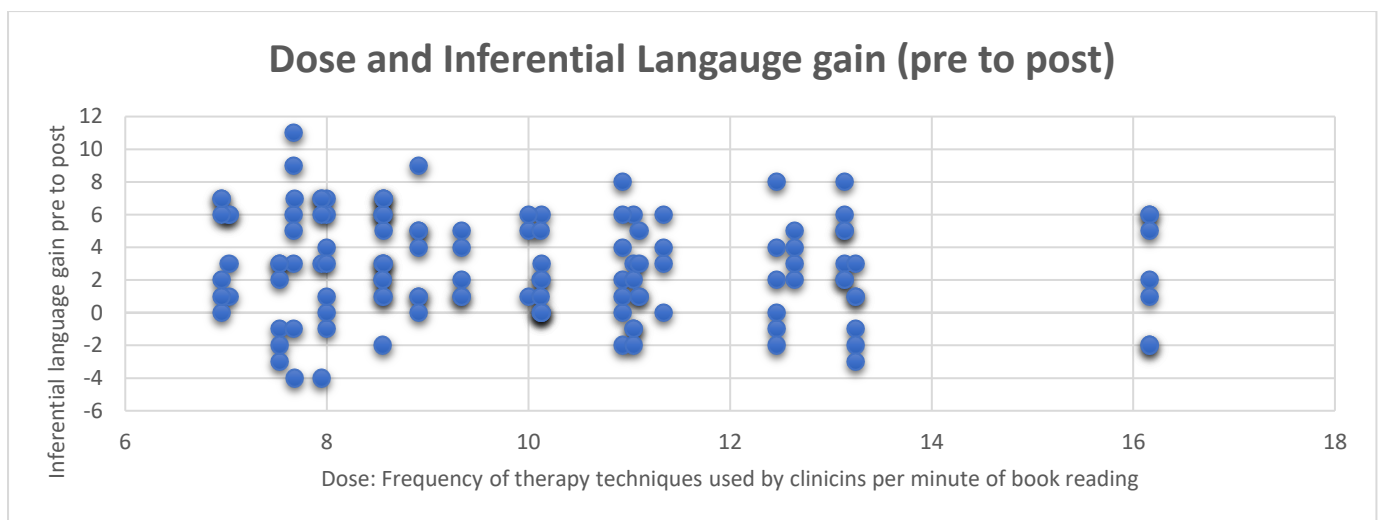
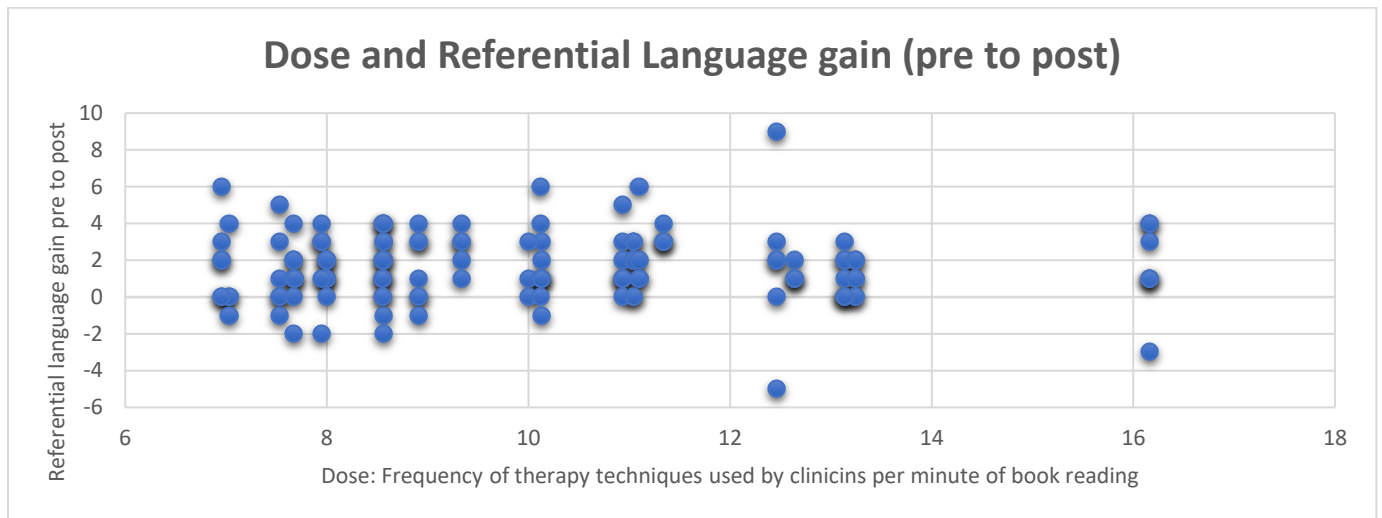


Figure 3: Cumulative dose (number of hours attended intervention x number of therapeutic techniques used / minute by clinicians) and referential and inferential gain pre to follow-up

