

Exploring the Feasibility and Preliminary Efficacy of a Classroom-Based Prosodic Training Program for Infants and Toddlers

Although prosody plays a critical role in early language acquisition, the effects of prosodic training on language outcomes during infancy remain unexplored. The present study aimed to implement a novel prosodic training program (PRyME – Prominence, Rhythm, Melody and Embodiment) designed for children aged 6 to 36 months.

Thirty-three typically developing children ($M_{\text{age}} = 24.77$ months, $SD = 9.46$) participated in the study at the *Escola de São Vicente de Alcabideche*, Portugal. The prosodic training was delivered in 23 weekly 45-minute group sessions. PRyME Activities included playing with rhythmic, stress, and intonation patterns, using body movement and musical tools. Pre- and post-intervention effects were assessed with the Language and Communication subscale of the Griffiths-III Mental Development Scale and anonymous satisfaction questionnaires completed by educators ($n = 4$) and parents ($n = 28$).

Developmental progress was evaluated by examining the discrepancy between developmental age and chronological age before and after the training. Discrepancy scores were calculated as *Developmental Age* minus *Chronological Age* (both values measured in months). Developmental age was derived using age-equivalent scores from the *Griffiths Mental Development Scales - 3rd edition*. Positive values indicated performance above chronological age expectations, whereas negative values reflected developmental functioning below age level.

A paired-samples *t*-test revealed a significant shift in discrepancy from pre-test ($M = -0.95$ months, $SD = 4.14$) to post-test ($M = 1.58$ months, $SD = 4.46$), $t(18) = 3.76$, $p < .001$, $d = 0.86$, suggesting that the children's developmental performance improved to levels exceeding age-based expectations following the training. Educators and caregivers reported high satisfaction, language gains, and strong engagement.

These findings underscore the promise of PRyME as an early intervention strategy and support its integration into early infancy curricula.