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Exploring the Impact of Regularity, Frequency and Phonological Complexity on Morphological Production in Children with DLD and Phonological Disorders

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Abstract

This study examined the effects of regularity, frequency, and phonological complexity on morphological production in Turkish-speaking children with developmental language disorder (DLD) and phonological disorder (PD) compared to typically developing (TD) peers. Thirty children (ages 4–6) completed elicited production tasks using real and nonce words with regular and irregular noun and verb suffixes. DLD children showed lower accuracy in tasks involving consonant voicing and epenthesis and performed significantly worse on irregular suffixation, often substituting irregular forms with familiar ones. Nonce word production confirmed these challenges. Random Forest analyses indicated that phonotactic probability best predicted TD performance, while lemma frequency and phonological neighborhood density were more influential for DLD and PD groups, respectively. These findings suggest that DLD children rely on familiar, regular forms to manage morphological complexity, reflecting distinct processing strategies compared to PD and TD peers.