

# Working a memory – Cognitive impact of chant acquisition in children

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## Abstract

Working memory, as proposed by Baddeley and Hitch, is a key model for understanding cognitive functions critical to learning, yet its role in language learning through phonological processes is less explored. The "Sanskrit Effect," coined by Hartzell et al., refers to the cognitive benefits derived from chanting Sanskrit, enhancing brain regions involved in language and memory. This study examines the effects of phonological training through the acquisition of a linguistically and metrically complex Sanskrit chant, the "Shiva Tandava Stotra," on the working memory and attention of children aged 5-7. Over six months, children engaged in daily mantra-based rhythmic exercises, which targeted phonological awareness, rhythmic processing, and attentional control. Pre- and post-assessments revealed significant improvements in auditory-motor synchronization, phonological decoding, working memory retention, and attention. This study underscores the potential of integrating rhythmic-linguistic frameworks into educational curricula as a tool to support cognitive, linguistic, and attentional development, particularly in children with learning challenges.