

How is narrative development related to early executive functions and language? A longitudinal study in deaf and hearing children

Mario Figueroa¹, Ros Herman², Gary Morgan³

¹Autonomous University of Barcelona, Barcelona, Spain. ²City University of London, London, United Kingdom. ³Open University of Catalonia, Barcelona, Spain

Abstract

Narratives are part of children's everyday language interactions and have been linked to broader competences such as academic skills. Narratives are demanding and the full mastery of skills is not achieved until early adulthood. Therefore, narratives also place high demands on children's cognitive abilities, in particular their executive function and language skills. To produce an oral narrative, children must also create a cohesive structure, use specific vocabulary and organise a narrative according to a story grammar. The present study analyses the development of narrative micro- and macro-structure in deaf and hard of hearing (DHH) and hearing children, and their relationships with executive functions and expressive vocabulary. Data were collected from 72 British children who were enrolled in primary schools at the first time of testing. The DHH group was composed of 30 children with cochlear implants or hearing aids. The main language of these participants was spoken English, although half of them were also fluent in sign language. DHH and hearing children were assessed of their narrative skills, vocabulary and executive functions with the Spider story, One-Word Picture Vocabulary Test and the Behaviour Rating Inventory of Executive Functions. Two years later, the Spider Story was administered again in order to test the narrative skills. After two years, the DHH and hearing group improved their scores on the Spider story and the DHH group caught up with their hearing peers two years later. EF was associated with narrative skills in the hearing group, while it was not associated with DHH children's narrative skills. Vocabulary was associated with narrative skills in both groups. This study shows DHH children made significant progress in developing their narrative skills across 24 months.