

Abstract

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Most children with severe speech and physical impairment (SSPI) find it difficult to reach a functional level of literacy. This thesis aimed at exploring literacy in children with SSPI from two different linguistic environments, examining the importance of phonological awareness, memory abilities and characteristics of the spoken language. In **study I**, phonological awareness ability was investigated in Swedish children with SSPI and compared to children with natural speech, matched for linguistic and mental age. Memory ability, another important predictor to literacy, was studied in the same group of children in **study II**. A cross-linguistic comparison of reading, spelling, phonological awareness and memory was made between Irish and Swedish children with speech impairment in **study III**. **Study IV** investigated these abilities in a larger group of children with SSPI, from both Ireland and Sweden, and compared the results to those of a group of children with natural speech, matched for linguistic age. Results from **study I** revealed fairly well developed phonological awareness abilities in children with SSPI. They performed at a significantly lower level than the naturally speaking children only on a visually presented rhyming task. This particular difficulty was discussed in terms of being a consequence of a weakness in memory processes and in the ability to retrieve and store the phonology of written words. Results from **study II** supported the notion that children with SSPI do have memory problems. However these problems do not seem to be limited to phonological memory tasks since they performed significantly weaker than the comparison group on five out of six measures of memory, including tests of visuo-spatial memory. In **study III**, the cross-linguistic comparison indicated that reading and spelling development in children with SSPI, just as in children with natural speech, are affected by the quality of the spoken language. It also became clear that the Irish children had come further in their literacy development compared to the Swedish children. This was probably due to more years of literacy training. In **study IV**, the group of children with SSPI performed weaker on measures of reading, spelling and rhyming ability than the comparison group. There was no difference between the groups on phoneme awareness, which suggests that the link between phoneme awareness and literacy might look different for children with SSPI than for children with natural speech. Rhyming ability played an important part in reading and spelling for the children with speech impairment, while the naturally speaking children drew on their knowledge of phoneme awareness. This seemed to be a reflection of the fact that the children with SSPI were at an earlier level of reading and spelling development. For educational purposes, the different link between phonological awareness and reading and spelling, as well as possible memory difficulties in the children with SSPI, suggests adjustments of teaching methods where the

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