Investigating handwriting difficulties in children with dyslexia

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Abstract

Past experiments have shown that children with dyslexia frequently show poor and slow handwriting skills. It is not clear whether these difficulties are a consequence of their spelling deficit or if they arise from graphomotor difficulties. The present study aims to test the hypothesis of the presence of handwriting difficulties in dyslexia, through the investigation of the impact of graphic complexity of words on writing. The sample was composed of French-speaking primary school children: 23 children with dyslexia (DYS) were compared to two groups of typically developing children: 23 chronological-age (CA) matched children and 23 spelling-age (SA) matched children. The experimental task was a single-word dictation task performed on a digital tablet. The target words varied in graphic complexity (simple vs. difficult). This task was scored on spelling accuracy, handwriting quality and handwriting speed. Results revealed no global differences between the three groups for handwriting quality. However, the DYS children were more impacted by the graphic complexity of words than both the CA and SA children. These findings support the idea that children with dyslexia struggle with the graphomotor aspects of writing. These findings convey important information for educational and clinical supports.