
The impact of word frequency on peripheral processes during handwriting: A matter of age

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Résumé

Although several studies have found that the sublexical route of spelling has an effect on handwriting movements, the impact of lexical variables on peripheral processes during writing is less clear. This study addresses the hypothesis that word frequency affects writing durations only during writing acquisition, and that at some point in development, the handwriting system becomes an autonomous system relatively unaffected by lexical variables. Spanish children attending Grade 2, 4, and 6 performed a spelling-to-dictation and a copy task in which word frequency was manipulated. Analyses on written latencies, writing durations and in-air pen trajectories were performed using the Linear Mixed Model procedure. Results revealed that written latencies and writing durations decreased with age, especially between Grade 2 and Grade 4. Written latencies were longer during copying and writing durations were longer during spelling-to-dictation for all children but both task effects were smaller for older children. Crucially, word frequency affected writing durations in Grade 2 and (marginally) Grade 4 but not in Grade 6. However, all groups showed a similar effect of word frequency on written latencies. These findings suggest that lexical processes may impact peripheral processes only during writing acquisition and that this influence reduces throughout writing development.

Mots-Clés: Handwriting, word frequency, written latencies, writing durations

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