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Impact of cognitive abilities on reading and writing skills of a dyslexic Chinese-English bilingual child

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Abstract

This paper discusses a case study of a 10-year-old Chinese-English bilingual boy, who has developmental dyslexia. The boy exhibits a discrepancy in his reading and writing abilities in both languages, which is believed to be due to the distinct orthographic characteristics and cognitive requirements of the two languages. The study investigated the reasons for his literacy skills profile from both orthographic and cognitive perspectives by evaluating the boy's working memory, literacy skills, receptive vocabulary, and cognitive abilities in both languages. Preliminary findings revealed that while the child's cognitive profile was consistent across both languages, his reading and writing accuracy in Chinese was lower compared to TD Chinese-English bilinguals, with greater difficulties in Chinese writing. This case study reinforces the cognitive account theory, suggesting that the varying cognitive demands needed for literacy skill development can result in differences in these skills, particularly regarding accuracy, in bilingual children (Sambai et al., 2022).