

Abstract

Difficulties in reading and Mathematics often co-occur. There are many linguistic and cognitive factors that predict reading or mathematical performance respectively, but their overlap and underlying skill profiles are still unclear, especially in Chinese speaking children. This study divides 349 Primary 1 to 4 Hong Kong students into four groups: reading difficulties only (RD), mathematical difficulties only (MD), comorbid reading and mathematical difficulties (RDMD) and control (C). Group differences in several linguistic-cognitive factors, including phonological awareness, morphological awareness, rapid automatized naming, working memory and sustained attention are investigated. Results have revealed that morphological awareness and working memory are common deficits underlying both Chinese and Mathematics, together with the 45% noticeable comorbid rate, providing evidence of overlap in Chinese and Mathematics. Theoretical implications on comorbidity models and educational applications are discussed.

Keywords: reading difficulties, mathematical difficulties, cognitive and linguistic weakness, morphological awareness, working memory