



Department of Psychology
The University of Hong Kong

香港大學心理學系

Brown Bag Lunchtime Seminar (Via Zoom)
(Theme: Social and Health Psychology)

A Framework for Explaining Variations in Chinese Reading and Spelling Difficulties: Differential Demand Hypothesis

12:30 p.m. – 1:30 p.m. | March 25, 2022 (Friday)



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Abstract

Reading and spelling are closely related skills, some considered them as one ability while some do not. The current presentation would present a proposal for a theoretical framework, the Differential Demand Hypothesis, to explain reading-spelling dissociation in Chinese and examined the framework in 3 studies. In a nutshell, the Differential Demand Hypothesis hypothesized that reading demands a higher phonological representation quality and stronger constituent binding, and spelling demands a higher orthographic representation quality in Chinese.

Study 1 aimed at estimating the prevalence rate of the dissociated reading-spelling difficulties in Chinese and examining the corresponding psycholinguistic skills profiles of these dissociated reading-spelling difficulties. A stratified sample that should be representative of population of the Hong Kong primary school students was adopted. The sample consisted of 542 primary school students that were tested on reading, spelling, naming speed, phonological memory, morphological awareness and orthographic skills. The estimated prevalence rates of isolated Reading Difficulties (iRD), isolated Spelling Difficulties (iSD), and combined Reading-Spelling Difficulties (cRSD) were 7.32%, 6.95% and 9.51% respectively. When compared to the control group, children with iRD showed weakness in phonological memory and morphological awareness, children with iRD showed weakness in orthographic skills.

Study 2 examined factors mediating the relationship between the psycholinguistics skills deficits and reading-spelling dissociation. Three measures were developed to assess phonological representation quality, orthographic representation quality and the strength of phonology-orthography constituent binding. The study recruited 225 participants and they were assessed on their performance in literacy measures, lexical representation measures and psycholinguistics skills measures. Constituent binding was found to completely mediate the relationship between morphological awareness and dissociated reading variance, and orthographic representation was found to partially mediate the relationship between orthographic skills and dissociated spelling variance.

Study 3 focused on the developmental changes in the reading-spelling relationship in the Chinese language. A cross-sequential dataset was adopted, including 484 children recruited from grade 1 to grade 4 and 243 of them were retested once per year in the two subsequent years. The strength of the reading-spelling association was found to decrease with age. Morphological awareness and orthographic skills were found to explain dissociated reading variance and dissociated spelling variance respectively, concurrently and longitudinally.

The implications of these studies would be discussed in the presentation.

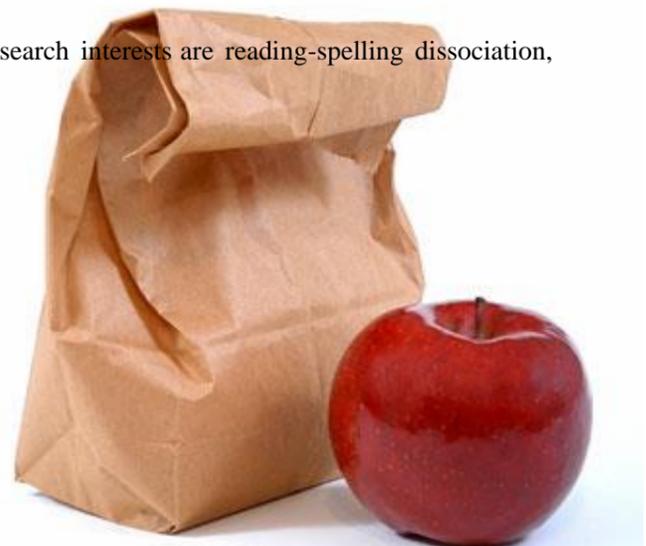
About the speaker

Edmond is a fourth year PhD student under the supervision of Dr Terry Wong. His primary research interests are reading-spelling dissociation, dyslexia and dysgraphia.

Zoom

<https://hku.zoom.us/j/3951550048?pwd=SncvL3RYakEycUtpL29vdDJEEdlEwdz09>

Meeting ID: 395 155 0048 | Password: psyc



~All are Welcome~

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