

The Dynamic Relations among Cognitive, Ecological, Psychological Factors and Reading Comprehension In Lower Grade Primary School Chinese Children: A Three-Year Longitudinal Investigation of The Componential Model of Reading

Reading comprehension is a critical ability for children, starting in early primary school. According to the Componential Model of Reading (CMR), cognitive (e.g., word reading and language comprehension skills), ecological (e.g., socioeconomic status and home literacy environment) and psychological (e.g., general psychological status and reading-related motivation and self-efficacy) factors are important for developing reading comprehension skills. However, most previous studies mainly focused on the role of cognitive factors in reading comprehension, while factors in the three domains were rarely considered simultaneously. In addition, the original CMR paid little attention to the dynamic relations among these factors and how the factors jointly impact reading comprehension. This project, thus, aims to investigate the direct and indirect effects of each of the three components on reading comprehension and the bidirectional relations between the components and reading comprehension, with a three-year longitudinal design. A total of 250 Hong Kong primary school children and their parents will be recruited. All the children will be in the first grade at the beginning of the project and followed until grade three. They will be tested once per grade. In the cognitive domain, Chinese character reading, word reading fluency, listening comprehension and vocabulary knowledge will be measured. In the ecological domain, information about the socioeconomic status of the family (e.g., parents' educational levels and occupations) and home literacy environment (e.g., number of children's books, and the frequencies of parent-child reading activities) will be collected. In the psychological domain, both general and reading-related psychological status (e.g., reading motivation and reading self-efficacy) will be measured. Children's non-verbal intelligence and school environment will be considered as controls. We hypothesize that 1) the contributions of the ecological and psychological components will decrease over time, while the contribution of the cognitive component will be large and remain stable throughout the three years. 2) the ecological and psychological components will have indirect effects on reading comprehension mediated through the cognitive component; these indirect effects will vary as children get older, and 3) the relations between the three components and reading comprehension will be reciprocal across all three testing points. Theoretically, this proposed project will help us understand the dynamic relations among various factors and reading comprehension in young graders and enrich the CMR model. Practically, the findings of this project can inform a wide group of stakeholders (e.g., teachers, parents and policy makers) for delivering quality literacy education.