

Deaf students' literacy development in the SLCO Programme

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For students, both deaf and hearing, literacy skill development is a critical educational need and a critical factor in their academic success. However, deaf learners generally experience persistent difficulties in grammar development, reading comprehension and written expression (Kelly 1996; Berent 2001; etc.). Hearing loss, linguistic experience, along with some other factors exhibited great obstacles to deaf students to learn the speech-based written forms. Grammar of written Chinese follows that of Mandarin rather than Cantonese, thus, in Hong Kong, hearing children may utilize their acquired Cantonese vocabulary and grammar to learn Chinese as a second language. However, deaf children have to decipher written Chinese by making use of what restricted Cantonese they have learned through oral training.

According to Linguistic Interdependence Hypothesis (Cummins 2006), it is possible that knowledge of a first language, which can be a sign language, can be transferred to a second language if given adequate exposure and motivation in the language environment. In 2006, the Jockey Club Sign Bilingual and Co-enrolment (SLCO) in Deaf Education Programme was initiated in Hong Kong. In a mainstream school under the programme, Hong Kong Sign Language was introduced in class as an instruction language in addition to oral Cantonese to develop deaf students' written Chinese and literacy skills. Since vocabulary and grammatical knowledge are fundamental components of literacy development, this study will investigate SLCO deaf students' knowledge of Chinese vocabulary and Chinese grammar to address the issues of their literacy development in the sign bilingual environment.

It is found that under the SLCO environment, although deaf children's vocabulary developmental rate lags behind hearing peers, these deaf children's vocabulary abilities improved significantly over time (from Grade 1 to Grade 3). Repeated Measures ANOVA revealed a significant interaction effect of Grade X Hearing Status, $F(2.13, 161.33) = 14.69, p < .001, \text{partial } \eta^2 = .162$. However, the difference was shown in expressive vocabulary abilities, not in receptive vocabulary abilities. Results of the Assessment of Chinese Grammatical Knowledge revealed a general increasing trend as grade level moves up for all children and the difference between SLCO deaf

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children and SLCO hearing peers was found in Grade 1 only ($t(67) = -2.172, p < .05$), and not found from Grade 2 onwards. In addition, a regression analysis revealed that Chinese vocabulary ability ($r = .915, p < .01$) and Chinese grammar ability ($r = .793, p < .01$) are significant factors that highly contribute to D/hh students' literacy development ($F(4,7) = 14.817, p < .01, R^2 = .834$).

References

- Berent, G. P. (2001). Assessing and addressing learners' grammar development. In D. Janáková (Ed.), *International Seminar on Teaching English to Deaf and Hard-of-Hearing Students at Secondary and Tertiary Levels of Education: Proceedings* (pp. 124-134). Prague, Czech Republic: Charles University, The Karolinum Press.
- Cummins, J. (2006, October). The relationship between American Sign Language proficiency and English academic development: a review of the research. Paper presented at the conference *Challenges, Opportunities, and Choices in Educating Minority Group Student*, Norway.
- Kelly, L. (1996). The interaction of syntactic competence and vocabulary during reading by deaf students. *Journal of Deaf Studies and Deaf Education, 1*(1), 75–90.