

## **Testing Early Vocabulary Knowledge of Cantonese and Hong Kong Sign Language of Young Children**

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### **ABSTRACT**

This paper presents our recent efforts in developing two computerized vocabulary tests in Cantonese and Hong Kong Sign Language (HKSL) for young children between 18 and 30 months old. This is part of our ongoing project that aims at documenting the Cantonese and HKSL vocabulary development of a group of hearing toddlers who are learning HKSL as a second language in a baby crèche.

In the literature, there has been sporadic evidence suggesting that sign language learning can enhance the spoken language development of typically developing hearing children at a pre-school age, no matter whether they are learning sign language as their first language (e.g., Orlansky and Bonvillian 1985) or second language (Daniels 1994). In our current research project, we aim at investigating the bilingual vocabulary development of a group of hearing toddlers between the age of 18 and 30 months who are learning Hong Kong Sign Language in a baby crèche. To do so, we need language assessment tools that can effectively tap the linguistic knowledge of these young children. The two traditional methodologies for investigating early vocabulary development of children under the age of 2 are the MacArthur-Bates Communicative Development Inventories (MBCDI, 8 to 30 months old) and receptive experiments that employ the preferential looking technique. MBCDI is a questionnaire with a long list of vocabulary. Parents go through the list and decide if their children can understand them or use them in appropriate contexts. However, one criticism frequently raised against the MBCDI is the unreliability of parental reports. While preferential looking is generally accepted to be an effective methodology of tapping the knowledge of young children, one downside of it is the effort needed to set up the experiment and the time spent in coding the gaze data. In view of these problems, some researchers have proposed to develop computerized comprehension tests with touch-screen technology to complement these two traditional methods (Friend and Keplinger 2003). In this kind of test, young children would hear the target word, and are told to touch the correct picture on the screen. A correct attempt would trigger a reinforcing auditory signal. It is suggested that this methodology works well with kids as young as 16 months.

In this paper, we will present how we developed two computerized receptive vocabulary tests, one for Cantonese and one for Hong Kong Sign Language, basing on Friend and Keplinger (2003). We will discuss the process of item selection, test design, stimuli presentation, and the initial results of our trial run conducted for the young hearing children in the baby crèche. It is found that both Cantonese and HKSL scores of these children correlated with age, and they are progressing steadily in their acquisition of HKSL as a second language. Most toddlers had a consistency rate higher than 80% in their responses, and the percentage of consistency increases with age. Our preliminary

findings so far suggest that this test format is feasible for young children as young as 22 months old.

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