

Scaffolding Literacy Development for DHH Children: Reflections on the Composing of CSL-Chinese Bilingual Books

搭建聽障兒童讀寫能力發展的支架：基於中國手語-漢語雙語讀物創編的思考

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Qualitative Similarity Hypothesis (QSH) proposed that DHH children are comparable to their age-matched hearing children in terms of developmental trajectories, errors made and strategies used in spoken language reading and writing. Although, DHH children have retarded and delayed development according to the quantitative data, they ultimately attain a level similar proficiency as their hearing peers. (Paul, 2005) However, scaffolding is needed during the process. Deaf and hard-of-hearing (DHH) children are early bilinguals in CSL and Chinese. CSL, as the most easily learnt and first fully acquired language for DHH children, can offer a semantic scaffolding for DHH children to develop their reading skills and help them comprehending Chinese. Based on this idea, we've created and published two CSL-Chinese bilingual readings. They primarily focus on DHH children's reading skills and try to develop their signacy to serve as a language scaffolding for literacy.

“大手小手：我的第一套手語書” aims at pre-school and early school aged DHH children. It includes 9 picture books, 1 teacher's book and 1 student's book. “中華手語大系（視聽版）” targets DHH students in primary and secondary schools and consist of three editions including “手語說漢字”，“手語讀論語” and “手語誦唐詩”. In general, characteristics of the two set of books are listed below:

To begin with, the philosophy in compiling the books is that sign language input comes first. We consider sign language as a scaffolding to support the development of early Chinese reading and writing, and emphasize the use of sign language by teachers as an accessible language for students in Chinese teaching. Specifically, in “大手小手：我的第一套手語書”，“100 個急用先學手語詞” contributes to the enlightenment of CSL, and the other 9 bilingual picture books help DHH children to build up connections from signs to meaning and from signs to text.

Secondly, in terms of teaching strategy, Scaffolding and Zone of Proximal Development should be taken as the theoretical basis. Students should first master the phonological knowledge in sign language before we jump in to help with their development of sign language and Chinese reading skills. Since sign language nursery rhymes and sign language poems exquisitely present the phonological structure of sign language (e.g. handshape, movement, and location), through learning the above, DHH children can develop their language intuition, strengthen their phonological awareness, and feel the beauty of the language. Subsequently, they can use this as scaffolding to learn characters, words, sentences and develop their reading skills. At the same time, they will be able to map the sign language concepts to written texts.

Moreover, in terms of presentation, multi-modal information is made accessible to DHH children including colorful drawings, sign language pictures, written Chinese and sign language videos of words and phrases, stories, poems as well as nursery rhymes to offer them a multi-media learning experience. The books have integrated 100 sign language nursery rhymes and 100 teaching plans for kindergarten themed activity into the characters and plots in the picture books, in order to provide the front-line teachers read-made in-class teaching kit.

定性相似假說（Qualitative Similarity Hypothesis，QSH）認為，在有聲語言讀寫能力方面，聽障學生所經歷的不同階段、產生的錯誤、使用的策略都和聽力健全的同齡人相似，雖然在量化視角下有所減緩或延遲，但最終能達到和年齡相匹配的水平（Paul, 2005）。但這一過程的實現需要支架的幫助。聽障兒童是中國手語（CSL）和漢語的早期雙語者。中國手語作為聽障兒

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童最容易習得、最先真正完成習得的語言，可以為他們建構對書面語言的理解提供一種概念框架，促進他們對漢語的理解。基於這一理念，我們創編了兩套中國手語-漢語雙語讀物，聚焦聽障兒童的閱讀技能，試圖通過中國手語讀寫能力（signacy）的發展為漢語讀寫能力（literacy）構建語言支架。

《大手小手：我的第一套手語書》以學前期和學齡初期的聽障兒童為主要對象，包括 9 冊繪本，1 冊教學用書和 1 冊學習用書。《中華手語大系（視聽版）》面向中小學聽障學生，分《手語說漢字》《手語讀論語》《手語誦唐詩》三冊。總體上看，這兩套雙語讀物的特色如下：

首先，在編寫理念上，堅持手語輸入先行，以手語為支架支持漢語早期讀寫能力的發展，強調教師在向學生教授漢語知識的時候使用學生可理解的手語。以《大手小手》為例，“100 個急用先學手語詞”致力於中國手語的啟蒙，9 冊雙語繪本幫助聽障兒童建立從手勢到意義、手勢到文本的連接。

其次，在教學策略上，以支架理論為基礎，考慮到學生的“最近發展區”，在學生掌握了手語音韻學知識之後，再幫助其發展手語和漢語閱讀技能。手語童謠、手語詩歌等作品巧妙地體現了手語的語音結構（如手形、運動和位置），聽障兒童通過學習這些內容可以培養語感，增強語音意識，感受語言之美；之後可以此為支架，學習字、詞、句，發展閱讀能力，並學習如何將手語概念與書面文字聯繫起來。

再次，在形式呈現上，將豐富多彩的繪畫、手語插圖、漢語書面語和詞句、故事、詩歌、童謠等手語視頻結合在一起，為聽障兒童提供多模態，多媒體的學習體驗。在繪本中人物和情節的基礎上將 100 首手語兒歌和 100 個幼稚園主題活動教案融入其中，為一線教師提供現成的課堂教學工具包。