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ろう児をバイリンガルとして育てるということ

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Educating Deaf Students as Bilingual

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要 旨

この論文では、手話言語学研究の最新の知見、とりわけ手話言語と音声言語の同時獲得—バイモーダル・バイリンガリズムに関わる研究などのもたらす知見に照らしてバイリンガルろう教育の概念を考察する。この研究は現在進行中であるが、すでに学校環境におけるバイモーダル・バイリンガル習得を支援する最適条件を明らかにし始めている。本稿は、ろう者であれ聴者であれ、参加者である生徒も教員も、互いに支え合い、また学び合う共学環境がそうした最適条件の一つであると論じている。そして、香港におけるろうバイリンガル・コエンロールメント教育プログラムを例にとり、教室における香港手話と広東語のインプットがどのようにろう児と聴児、そして聴者教員のバイモーダル・バイリンガル習得に貢献するか、そしてそれによっていかにバリアフリーな教育環境を達成しているのか報告する。

Abstract

The paper introduces the concept of sign bilingual education against the backdrop of the latest development of sign linguistics research, in particular, studies involving the simultaneous acquisition of a signed language and a spoken language--bimodal bilingualism. While research is ongoing, some findings have begun to shed light on the optimal conditions for supporting this mode of acquisition in the school environment. The paper argues that a co-enrollment environment, where deaf and hearing participants, students and teachers alike, support each other in teaching and learning, offers one such condition. Taking the Sign Bilingualism and Co-enrollment Education Programme conducted in Hong Kong (henceforth HK) as an example, the paper describes how Hong Kong Sign Language (henceforth HKSL)-Cantonese input in the classroom nurtures

bimodal bilingual acquisition of deaf and hearing students, as well as hearing teachers thereby creating a barrier-free education community.

キーワード：手話言語、バイモーダル・バイリンガリズム、ろうバイリンガリズム、ろう教育

Keywords: sign language, bimodal bilingualism, sign bilingualism, deaf education

1. Introduction

The philosophical foundation of sign bilingual education for deaf and hard-of-hearing children has been strengthened by sign linguistics research that gradually emerged in 1960s, where findings show that natural signed languages demonstrate principles of linguistic organization and deaf children acquire such principles just as hearing children acquire them in spoken languages (see Chen-Pichler, Kuntze, Lillo-Martin, de Quadros, & Stumpf, 2017). As the field of research develops, attention has been drawn to how deaf or hearing children of Deaf parents acquire signed language and spoken language simultaneously from birth, as well as how grammars of signed and spoken languages are co-activated in linguistic processing among hearing signing adults, especially those that are born of Deaf parents (i.e., Children of Deaf Adults; henceforth KODAs). Such linguistic research efforts have been brought under the term *bimodal bilingualism* nowadays.

While research is still ongoing, the findings have led to a new understanding of some optimal conditions for providing linguistic input to deaf and hard-of-hearing children to support their language development as well as education. The paper offers a summary of the latest research developments, highlighting to what extent deaf education can borrow the insights generated thus far in shaping its philosophical foundation. It also argues that, while the findings of sign linguistic research are insightful, organizing deaf education practices also needs to take the following factors into consideration: (a) the changing context of deaf education; (b) the influence of advanced assistive hearing technology such as cochlear implantation and early speech intervention; and (c) the role of Deaf teachers in bringing up and educating deaf children. The last part of the paper summarizes how insights of sign linguistics research as well as the factors mentioned above have been

incorporated into a recent education program implemented in Hong Kong, which is referred to as *Sign Bilingualism and Co-enrollment Education for Deaf and Hearing Children*. In keeping with disciplinary conventions, the paper adopts lower-case ‘deaf’ to refer to the audiological state of not hearing or being hard-of-hearing, and capital-case ‘Deaf’ to refer to individuals, adults or children, who self-identify as users of signed language and who regard themselves as members of the Deaf community.

2. Sign Linguistics Research: A Brief Summary

To appreciate the arguments for supporting children who are deaf or hard-of-hearing to become users of a signed language and a spoken language (i.e., bimodal bilinguals), one needs to trace the historical development of sign linguistics research, especially the findings which bear on our understanding of how deaf children acquire signed languages as well as spoken languages.

Sign linguistics as a research discipline emerged during 1960s. Stokoe (1960) identified the building blocks of signs of American Sign Language, handshape, movement as well as location and analysed them based on principles of phonology such as ‘duality of patterning’. Since then, study of sign languages has been extended to morphology, syntax, semantics, pragmatics and discourse. There is also an increasing body of research focusing on psycholinguistic processing and acquisition of signed languages (Pfau, Steinbach, & Woll, 2012). Nowadays, we understand that signed languages reflect universal principles of linguistic organization (Sandler & Lillo-Martin, 2006); yet, there are modality specific properties that need accounting for because signed languages are transmitted in the visual-spatial modality. One such property is the use of space in the linguistic organization of signed languages. In addition to the often cited discussions involving spatial verbs, agreeing verbs and classifier verbs which require spatial indices for person agreement or location of arguments, Altimira (2015) extends the interpretation of referential indices and associates them with the study of (in)definiteness and specificity. Another property is iconicity in signed languages, which is said to occur at the lexical, morphosyntactic, or even semantic and pragmatic levels (Perniss, Thompson, & Vigliocco, 2010).

In terms of research on signed language acquisition, Deaf children and hearing

children of Deaf parents acquiring signed language as first language demonstrate milestones and acquisition processes of linguistic properties reminiscent of hearing children acquiring spoken languages, in phonology, morphology and syntax (Chen-Pichler, Kuntze, Lillo-Martin, de Quadros, & Stumpf, 2017). In recent years, signed language acquisition research is gradually assuming a bilingual perspective in terms of research methodology, examining how KODAs and implanted Deaf children of Deaf parents acquire a signed language and a spoken language simultaneously from birth (Lillo-Martin, de Quadros, & Chen-Pichler, 2016). A variation of bimodal bilingualism is *sequential bimodal bilingualism*, by which we mean children are exposed to one language from birth but to a second language at a very young age and usually before age 5 or 6 (Meisel, 2008). Expanding this line of research to study how deaf children acquire language within the paradigm of sequential bimodal bilingualism is crucial because between 90-95% of deaf children are born into hearing families that have no knowledge of signed language themselves. In other words, deaf children born of hearing parents are bound to receive input from a spoken language from birth although there is no guarantee for these children to perceive and develop speech without fail. If given the facility that enables the children to receive input from a signed language at a young age, theoretically speaking, they have every potential to become bimodal bilinguals. A recent study by Tang and Li (2018) shows that this particular group of deaf children could ultimately differentiate the word orders (i.e., SOV in HKSL and SVO in Cantonese) and morphosyntactic properties of verbs (i.e., complex classifier verbs in HKSL and simple bare verbs in Cantonese) of the two languages; a phenomenon demonstrated through their acquisition of motion and location classifier predicates in HKSL.

Another impetus for adopting bimodal bilingualism as an overarching framework for investigating deaf children's language development comes from researchers' frequent observation that signing Deaf children and KODAs prefer 'code-blend' to 'code-switch' because there is no competition between the two sets of articulatory organs for oral and signed languages. Research on code-blending shows a range of crosslinguistic interaction phenomena. On one end of the continuum one finds code-blends that are based on the spoken language grammar sometimes coarticulated with signs, and on the other end of the continuum the code-blends reveal signed language grammar but fused with vocalized words drawn from the spoken language (e.g., 'KODA talk' as coined by Bishop, 2011).

Note that code-blending is different from total communication where the outputs of the latter are perceived as following the spoken language grammar to the extent that in some variety of total communication the functional elements of the spoken language grammar are consistently represented in signing. Another insightful evidence of crosslinguistic interaction comes from code-blends that are constructed systematically by the grammatical elements of both signed language and spoken language. In a study by Fung and Tang (2016) on the code-blending behaviour of a deaf child acquiring HKSL and Cantonese sequentially, they observe that the language of the functional head will determine the choice between a head-complement (i.e., Cantonese word order) and a complement-head (i.e., HKSL word order) order. In (1), when the language of the functional head (e.g., CAN) is solely in HKSL, the word order is complement-head, which is the HKSL order. When code-blending occurs on the functional head, as in (2), they find a head-complement order (i.e., Cantonese word order) while on other occasions and under a similar condition, a complement-head order may be observed.

- (1) Can: wai (x3), tai haa ?
 hey see ASP
 HKSL: ges:attn, SEE-a *CAN* ?
 hey see.SP can
 “Hey, (let me) take a look (at this)?” (CC 5;0.8, HKSL-Cantonese)
- (2) Can: zigei hoji waakwaak .
 self can draw
 HKSL: SELF CAN DRAW .
 self can draw
 “(I) can draw by myself.” (CC 6;0.28, HKSL-Cantonese)
- (3) Can: luk
 green
 HKSL: PEN
 pen
 “Green pen.” (CC 5;8.24, Fung, Lam & Tang, 2008)

Example (3) showing an NP with an adjective is another type of simultaneous code-

blends observed in the child’s data. The deaf child used Cantonese for the adjective luk3 (“green”) while signing the head noun PEN in HKSL. In sum, this rule-governed, code-blending behaviour offers evidence that deaf children can draw the grammatical resources of the languages they know in linguistic processing simultaneously. Clearly, developing two bilingual lexicons to complement each other during the process of bilingual acquisition impacts their overall language development positively. In fact, this evidence is not unique, another striking example involving co-activation and adoption of two independent grammars comes from the LIS-Italian code-blending data of hearing KODAs. While LIS and Italian require different word orders for wh-questions, the participant in (4) is able to adopt a target word order for each in his linguistic performance, and produced an Italian and LIS wh-question simultaneously, based on the same proposition.

(4)	Ita:	<u>Chi</u>	ha	<u>telefonato</u>	?
		who	have.3SG	call.PAST	
	LIS:	<u>CALL</u>		<u>WHO</u>	?
		call		who	

“Who called?” (LIS-Italian, Donati & Branchini, 2013, p. 108)

In addition to child language acquisition, recent psycholinguistic research has begun to reveal the processes involved when two independent grammars transmitted in different modalities are co-activated. Although most of such research focus on bilingual lexical processing, the evidence is quite consistent that, despite stark differences in phonology, signed versus spoken, comprehension of semantic concepts triggers the phonology of the two languages involved, leading to interesting processing consequences. These studies also suggest that lexical integration of words and signs is at the semantic level. Also, facilitation effects occur when both words and signs are presented simultaneously (i.e., code-blended) than in either mode in lexical retrieval (see Emmorey, Giezen, & Gollan, 2016 for an excellent summary).

To sum up, there is abundant evidence showing that deaf and hard-of-hearing children have capacity for acquiring more than one language and one of them can be a signed language. Additionally, knowledge of grammars transpires cross-modally thus crosslinguistic interactions are part and parcel of bilingual acquisition, to the extent that

when deaf children and KODAs are acquiring more than one linguistic system at a young age, they are bound to access such knowledge spontaneously in linguistic production and comprehension. We argue that it is this capability of crosslinguistic interaction that enables deaf and hard-of-hearing children to build a strong language foundation. Therefore early dual linguistic input is pivotal to the development of such linguistic abilities. Crosslinguistic interaction is not to be confused with bilingual confusion and signed language disadvantage. Same as hearing children, deaf and hard-of-hearing children can differentiate the grammars of the two linguistic systems and produce the target structures as indication of acquisition. Additionally, they utilize such linguistic resources in a variety of ways including code-blending, as results from the above show.

3. Implications for Educating Deaf Children

It is well known that deaf and hard-of-hearing children, especially those born into hearing families, face challenges in achieving full competence in a spoken language as first language during the early years. When schooling begins, they start to receive training in literacy skills (i.e., reading and writing skills) with inadequate knowledge of first language. Due to late exposure, spoken as well as signed, reports about their poor literacy development are common (Mayberry, 2007). Nevertheless, there are studies which show that deaf children of Deaf parents with early signed language input can achieve a level of literacy skills similar to the hearing age norms (Hoffmeister, 2000; Scott & Hoffmeister, 2017). As a matter of fact, the benefits of signed language in educating deaf and hard-of-hearing children often face challenges from some recent reports pointing to improvement in speech perception and spoken language development of deaf children as a result of cochlear implantation (see Geers, Mitchell, Warner-Czyz, Wang, Eisenberg, & the CDaCI Investigative Team, 2017) implying that signed language is not pivotal to if not necessary for deaf children's language development. Therefore, when attempting to set up an educational environment that is conducive to deaf children's language development and education, these educational and clinical findings cannot be ignored.

It goes without saying that early exposure to bilingual input is beneficial to unimodal bilinguals just as well as bimodal bilinguals. In many countries, efforts to promote bilingualism in education include building into the curriculum second language input,

sometimes as early as 2 or 3 year olds. As for deaf and hard-of-hearing children, research findings so far, however preliminary point to the importance of early exposure to linguistic input to safeguard against linguistic deprivation and to facilitate bimodal bilingual acquisition for the benefit of a more solid language foundation. Seen in this light, schools for the deaf become crucial for providing early signed language input if the system of schooling permits early admission of deaf and hard-of-hearing at an early age. Concomitantly, how to set up a school environment that supports the bimodal bilingual acquisition of deaf and hard-of-hearing students is another important factor influencing its success. Schools for the deaf, which have been perceived as havens for signed language transmission, provide a highly conducive environment to support signed language acquisition. Whether they are equally successful in supporting students' literacy development is subject to many intrinsic factors of the system of schooling as well as the student characteristics who usually show highly diverse backgrounds.

Where mainstream education for the deaf has become the norm nowadays, supporting deaf children to learn in a sign bilingual fashion becomes a daunting task. Some efforts boil down to bringing into the classroom a sign interpreter or a Deaf instructor to support individual deaf students' education or signed language development. However, the school environment itself cannot be said to be conducive to bimodal bilingual acquisition because there is no community of signed language users to interact with the deaf student in class, and often than not, deaf and hard-of-hearing children may shun using speech in class to reveal their deafness. Another implication is how to take on the role of speech in the development of bimodal bilingualism. Much code-blending research involve KODAs who have no hearing or speech difficulty. The study conducted by Fung and Tang (2016) uses data from a deaf child born of Deaf parents who wears hearing aids and who develops a relative degree of speech intelligibility. Additionally, some recent bimodal bilingual acquisition research has begun to document the oral language outputs of deaf children with cochlear implantation (Goodwin, Davidson, & Lillo-Martin, 2017). In other words, the perspective of viewing the linguistic abilities of deaf children is changing also nowadays, from one who only communicates in signed language to one who uses signed language as well as spoken language in daily communication and who code-blends when conditions arise. In the following section, we will briefly summarize the philosophy and practices of sign bilingual education developed as a response to early

signed language acquisition research in the early 1980s.

4. Sign Bilingual Education: A Brief Summary

Sign bilingual education implemented in many schools for the deaf in the wake of research on the linguistic properties of natural signed languages and their acquisition by deaf and KODAs' during 1980s led to the philosophy that children who are deaf or hard-of-hearing could be exposed to signed language as early as possible and acquire it as first language. The written form of spoken language would only be given when these children have reached an appropriate level of signed language proficiency signalling a strong L1 foundation. Efforts for supporting their speech or oral language acquisition are hard to define, as primacy is usually given to students' literacy development (Plaza-Putz, 2012). Therefore, for schools of the deaf that adopt the sign bilingual approach, signed language may become a medium of communication/instruction or is introduced into the school curriculum as a subject to help deaf children learn signed language systematically.

In a sense, the research framework of bimodal bilingualism described above, where focus is on the acquisition of signed language and oral language since birth (see Lillo-Martin et al., 2016), would have difficulty in providing an empirical foundation for supporting this form of sign bilingual education. For bimodal bilingual acquisition, it is simultaneous input from a signed language and a spoken language determines the nature of research. In other words, it is speech and signed language development that are tracked before the children reach age 5 or 6 in order to examine how the two linguistic systems develop independently and yet interact with each other when certain conditions arise. At schools of the deaf that adopt a sign bilingual approach, to some extent, dual language input is guaranteed, but input of the two languages either comes in a sequential fashion (i.e., natural signed language and then spoken language), or in a different form for the spoken language (i.e., written form rather than speech). Note that literacy developments as promoted in sign bilingual education is beyond the scope of bimodal bilingual acquisition research.

With the promotion of integration and inclusion, we saw in recent decades an exodus of students with different education needs from special schools to mainstream education setting, where parents perceive to be providing better educational opportunities for their

child. When deaf education is viewed as a form of special education by many educators, Deaf and hard-of-hearing children are also channelled into mainstream education and the situation becomes more acute when universal new born hearing screening and advanced hearing technology such as cochlear implantation are in place to support their oral language development. This change of educational context has adversely broken the traditions of schools of the deaf in educating children using the sign bilingual approach. Brought up through mainstream education, the sense of Deaf Community among these children is weak because neither the schools nor the individual deaf children studying there have little if not no contact with signed language and adult Deaf signers. It is particularly so when many stakeholders have the misconception that signed language is not necessary in mainstream education. If available at all, signed language is taken to be a ‘support or remedial service’, usually rendered by sign interpreters, teachers from schools of the deaf, and sometimes Deaf paraprofessionals. However, Deaf students still feel being marginalized within the system (McKee, 2008).

The debate between the role of signed language and spoken language in supporting deaf and hard-of-hearing children’s language development came to the forefront in some recent papers. Humphries et al. (2014) highlight the high risk of cochlear implantation in the absence of signed language exposure during deaf children’s early language development. On the other hand, Geers et al. (2017) uses some nationwide data to demonstrate a lack of success with deaf children in their oral language development when they are exposed to signed language before implantation. In the midst of this debate, reports on the lack of achievement of deaf and hard-of-hearing students in mainstream education continue to unfold. Luft (2017) observes that the current integrative practices through placement in mainstream schools with even specialized educational support does not seem to guarantee a level of performance commensurate with their abilities or equivalent to their peers with or without disabilities. He further argues that children with hearing loss nowadays are unique when compared with children of other disabilities, therefore supporting children with hearing loss in education demands consistent language intervention, technological support and accommodations.

5. Implementing Sign Bilingualism in Mainstream Education

To implement sign bilingual education within the general framework of integration and inclusion, one cannot ignore the fact that early intervention may enhance the oral language development for a proportion of deaf and hard-of-hearing children, especially when such a provision comes during the early years of their lives. Therefore, Deaf students who are developing bimodal bilingualism in this context are bound to show a degree of oral language competence. As revealed in the studies summarized above, effects of crosslinguistic interaction manifest themselves in either bimodal bilingual children's signed language or oral language performance. From the perspective of sociolinguistics, using signed language and spoken language as language of social interaction requires that the participants identify themselves to be members of a bimodal bilingual school community who can function in both languages to satisfy the communicative and pedagogical needs in that community. Should such community membership be restricted to Deaf students and Deaf adults only? How about those hearing students and teachers who interact with Deaf students or Deaf adults and who become bimodal bilingual by virtue of their acquisition of signed language as second language? In the remaining part of the paper, we will introduce an education program established in HK that attempts to take these issues on board in the design of a school program that aims to benefit not only Deaf but also hearing students, and to achieve inclusive education through building a bimodal bilingual school community the membership of which are constituted by Deaf and hearing participants, students and teachers alike.

6. Sign Bilingualism and Co-enrollment Education: HK Experience

Commenced in 2006, the *Sign Bilingualism and Co-enrollment* (SLCO) approach as developed in HK takes bimodal bilingualism to be the ultimate goal of language development of Deaf as well as those hearing children who study with them. Both signed language and spoken language are given equal status in the classroom through the 'one teacher one language' strategy. In the SLCO classroom there is a hearing teacher who uses oral languages primarily (i.e., Cantonese, Putonghua and English depending on the lessons) but he/she may switch to HKSL to maintain 'transparency' in spontaneous

classroom communication. Co-teaching with the hearing teacher is a Deaf teacher who signs and whose role is to teach the whole class of Deaf and hearing students but not to interpret for the Deaf students in HKSL. This strategy avoids the problems of bimodal code switching within an individual when there is only one teacher, usually hearing with some degree of signing proficiency, to interact with both Deaf and hearing students. The incorporation of a Deaf teacher in the SLCO classroom resolves this problem with additional advantages. First, it echoes the UN Conventions on the Rights of Persons with Disabilities (CRPD) that deaf children have the rights to be supported by signed language, Deaf peers and Deaf role models in their education. In this respect, Deaf teachers of the SLCO classes are there to offer linguistic resources through direct, naturalistic interactions with their deaf students on a daily basis, thus bolstering their signed language development and accessibility to information in the educational process. In the SLCO classroom, the signing input also benefits the signed language acquisition of hearing teacher and those hearing students who study with Deaf students.

From the perspective of the development of oral language, the mainstream learning environment with a majority of hearing students and teachers (e.g., 36 Deaf students among 800 hearing students in one primary school) actually offers an enhanced acquisition environment for Deaf students to practise oral language production and comprehension, subject to their lip reading and speech perception abilities. In a SLCO classroom with a full curriculum, Deaf students with good speech perception abilities comment that signed language is still necessary because they could miss information through the auditory channel and presentation of information through signed language is a pivotal tool for recovering the missing information. Interestingly, hearing students also comment that they do the same as their Deaf peers because of their knowledge of signed language. For Deaf students with poor speech perception abilities, comprehension of lesson contents is primarily through signed language. Outside of the classroom, the need for social interaction is the driving force behind the Deaf and hearing students learning each other's stronger language, cultivated by the schools' adoption of the whole-school approach to SLCO education, treating signed language as an additional, not compensatory, language for all their students, Deaf and hearing alike (see Yiu, Tang, & Ho, 2019, for a more pedagogical description of the HK-SLCO model). Over time, one observes that Deaf students undergoing SLCO education are ready to switch between oral language and signed

language as a function of their assessment of the hearing status and signing proficiency of the interlocutors.

Does exposing deaf and hard-of-hearing children to signed language jeopardize their spoken language development? Tang, Lam, and Yiu (2014) found growth of knowledge of three languages (i.e., Cantonese, HKSL, and Written Chinese) with positive correlations among them. As for oral language development, one observes variability in terms of intelligibility when they use oral Cantonese, due to a combination of factors such as degrees of hearing loss, age of language exposure, effectiveness of hearing devices, etc. Nevertheless, anecdotal comments from teachers as well as speech and language therapists point to positive attitudes and readiness of the deaf students towards using speech in daily communication. A corollary issue is whether Deaf students studying in the SLCO school environment are aware that they are exposed to different signing varieties. The hearing students and teachers, who, being L2 learners, may produce signed structures that reflect crosslinguistic influence from their L1 Cantonese. Additionally, Deaf students in the course of bimodal bilingual acquisition may also behave the same. Tang, Yiu, and Lam (2015) found that SLCO Deaf students' metalinguistic differentiation between natural signing and manually coded spoken language peaked at primary 4, further corroborating the findings from bilingual acquisition studies that bilingual acquirers can separate the grammars of the two languages they are acquiring.

In addition to sign bilingualism, another principle of program organization is co-enrollment. According to Kirchner (2004), it refers to a form of inclusive education which emphasizes accessibility to a full curriculum and a critical mass of Deaf and hearing students studying together, with a ratio that may vary among 1:1, 1:3 and 1:4. When barriers of communication are removed through the development of bimodal bilingualism among the participants, the ethos of the SLCO classroom encourages co-participation of Deaf and hearing members in the education process. There are two levels of co-participation. At the level of Deaf and hearing teachers, the SLCO philosophy stresses collaborative teaching, lesson planning, class management, as well as direct communication between and among the teachers and the students, regardless of their hearing status. At the level of Deaf and hearing students, collaborative learning and peer support has led to appreciation for linguistic diversity and educational needs of each other. From a socio-psychological perspective, collaborative teaching between a Deaf teacher and a hearing

teacher put forward a positive message of Deaf-hearing mutual support and appreciation in the eyes of the students. Yiu and Tang (2014) report a high degree of positive social integration between the SLCO Deaf and hearing students. In short, the SLCO approach aims to live up to the expectations of inclusive education through nurturing bimodal bilingualism as a linguistic strategy for Deaf students and hearing students and teachers, and through co-enrollment to create a critical mass of Deaf students in a mainstream environment in order that they have support from the Deaf as well as hearing peers. In a nutshell, when the communication barriers are removed through nurturing all parties concerned to become bimodal bilingual, all Deaf and hearing peers see each other as partners in the learning and socialization process. Observations about peer support comes from the hearing students' readiness to sign interpret for their Deaf peers when the signing teachers are not present, or their enthusiasm to be trained as junior sign interpreters for school functions.

Since 2006 with an annual intake of 6 deaf and hard-of-hearing students, the SLCO Program has grown to support around 136 deaf infants and students as of 2017-2018, using the platforms of baby signing programs, kindergarten education, primary education and secondary education. In recent years, it is also extended to support the bimodal bilingual development of 311 typically developing infants from age 0-2 at five day care centres, as well as 192 ASD children and children with intellectual disabilities at three centres of two NGOs. Recent years also saw the emergence of more and more co-enrollment programs in different parts of the world. These programs recognize the benefits of incorporating signed language into mainstream education, although they may differ in terms of the hearing status of teachers, signing varieties, status of Deaf teachers, teacher qualifications, etc (see Marschark, Knoors & Antia, 2019, for a state-of-the-art discussion of co-enrollment programs). In Asia, the SLCO approach initially established in HK has been extended to Singapore and Macau. The Singaporean government, collaborating with the Singapore Association of the Deaf, started SLCO education for the deaf and hard-of-hearing children at a primary school in 2017.¹⁾ In 2018, SLCO education has commenced at a kindergarten and a day-care centre, with the support of the Macau government and Macau Association of the Deaf.²⁾ Additionally, some deaf schools in China are starting to experiment on reversed integration using the SLCO approach.³⁾ These developments recognize the insights from sign linguistic especially

bimodal bilingualism research and echo the UN-CRPD and WFD's call for signed language rights of deaf children in either schools of the deaf or inclusive education settings.
4,5)

7. Conclusion

This paper discusses the empirical justifications for sign bilingual education for deaf and hard-of-hearing children, and reports on some latest developments in pursuing sign bilingualism in mainstream education for the deaf. It argues that for sign bilingual education in mainstream settings to be successful, signed language should not be taken to be a remedial measure but an ordinary language for communication in the school setting, acquirable by deaf students, hearing students as well as teachers. Furthermore, signed language has potentials to partner with spoken language in the development of bimodal bilingualism among the participants in the school setting. Seen in this light, the language and its users, i.e., Deaf students and especially the Deaf signing adults as teachers, are welcome members of the mainstream school community for their linguistic and sociocultural resources to support the positive changes in a diverse classroom.

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Notes

- 1) <https://www.straitstimes.com/singapore/education/mayflower-primary-to-take-in-deaf-pupils>
- 2) <http://www.exmoo.com/article/30779.html>
- 3) http://qzrb.qz828.com/qzrb/html/2018-01/22/content_2264225.htm
- 4) <https://wfdeaf.org/news/wfd-position-paper-language-rights-deaf-children/>
- 5) https://tbinternet.ohchr.org/_layouts/treatybodyexternal/Download.aspx?symbolno=CRPD%2fC%2fGC%2f6&Lang=en

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