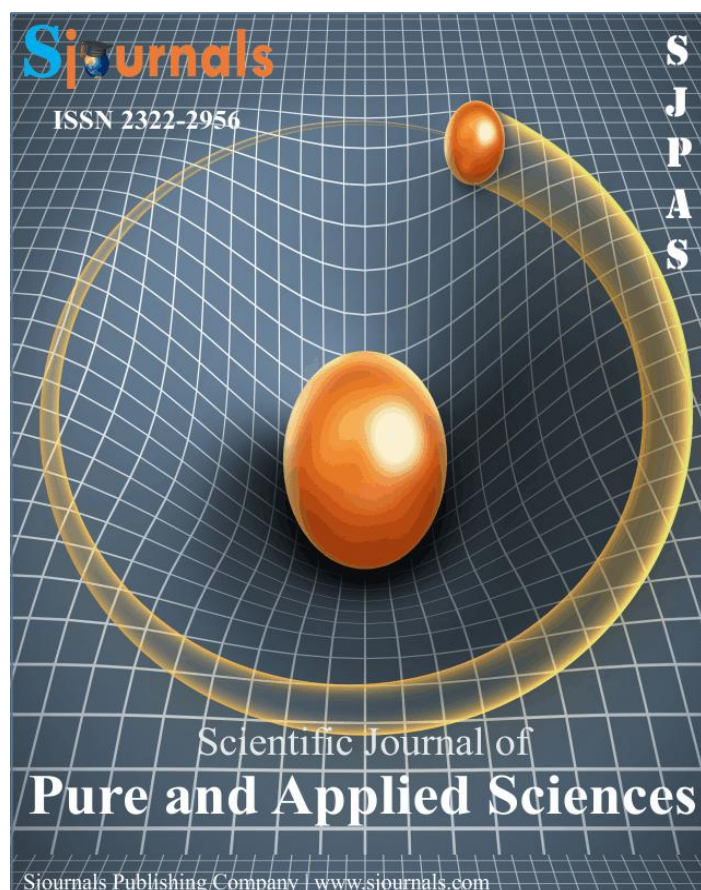


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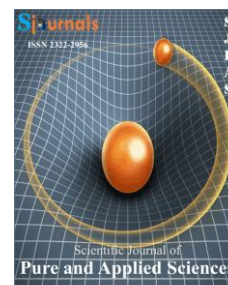
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Review article

Contextualising sign bilingual education within the epistemology of cummins's linguistic interdependence theory: A critical exposition

Patrick Sibanda*

Faculty of Applied Social Sciences, Zimbabwe Open University, Zimbabwe.

*Corresponding author: patrickssibandac@gmail.com

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ABSTRACT

The major focus of this review is to explore the context of sign bilingual education within the epistemologies and discourses of Cummins's Linguistic Interdependence Theory. In the exposition of the theory, it is clearly articulated by Cummins (1981) that the extent to which instruction in the first or mother language is effective in achieving proficiency of the first language is dependent on the transfer of this proficiency to second or target language. According to Cummins, this can only occur provided that there is an adequate input of the second language and motivation to learn it. While this hypothesis was initially targeted at languages of the same modality, current evidences point to the possibility of adapting the hypothesis to sign bilingual education which is premised on the equitable use of sign and oral languages. Some literature fiercely challenges the validity of the transferability between languages of varying modality. In the ultimate however, studies confirm that regardless of difference in modality between sign and oral languages, transfer can still occur not only at the conceptual, metalinguistic, linguistic and phonological levels but also at pragmatic, semantic and grammatical levels. Accordingly, the transfer which is envisaged by this theory is not a mere hypothesis but has been contextualised within sign bilingual education in countries such as Scandinavia, USA and UK. This transfer between sign and oral languages practices is also not limited to experiential activities such as reading and writing but also extends to cognitive

skills. From these arguments, the treatise concludes that Cummins's Linguistic Interdependence theory is indeed compatible with the sign bilingual model of educating deaf children in mainstream schools, that sign bilingual education cannot have any other theoretical basis besides that which recognises the interdependence of sign and oral languages and that this proposition has linguistic benefits for all children regardless of hearing status. On these bases, recommendations are proffered with regards to early exposure and proliferation of policies that recognise equality of languages and cultures regardless of modality and orientation.

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1. Introduction

Sign bilingual education is hypothesized on the basis of at least two languages of varying modalities. It is unlike general bilingualism which entails proficiency in two, often oral languages. General bilingualism is strongly and unquestionably embedded in Cummins's Linguistic Interdependence Theory. An in-depth and critical analysis of the theory however suggests that there is also compatibility and hence relevance of Cummins's theory to sign bilingualism, the philosophy which informs sign bilingual education. Sign bilingual education is premised on the equitable use and recognition of the dominant oral language and the national Sign Language which is effectively the mother tongue or first language for the deaf children. This review examines the epistemology of Cummins's Linguistic Interdependence Theory within the context of sign bilingual education. A critical discourse is put forward to illuminate both the possibility and impossibility of applying the theory to sign bilingual education. In the ultimate, however, evidences point to the validity of the theory with regards sign bilingual education. Thus Cummins's theory is regarded in this treatise as providing a firm foundation for the conceptualisation and practice of sign bilingual education.

2. The epistemology of cummins's linguistic interdependence theory

Mounty et al. (2014) explicate that sign bilingual education is predicted on early exposure a language that is accessible to deaf children. Cummins's Linguistic Interdependence Theory is the key to developing native like proficiency in any second language. A solid foundation of a first language (L_1), which in this case is Sign Language, is critical for the successful acquisition of second language (L_2) which for the deaf is oral language. Consequently, sign bilingual education posits that early exposure to Sign Language and an environment that equally embraces sign and oral languages using principles of language planning to provide an optimal foundation for the development of literacy skills in spoken language which is more dominant after all (Mounty et al., 2014). Dammeyer (2014) confirms that sign bilingual education is premised on the hypothesis that natural and fluent Sign Language has a positive correlation with spoken language skills.

From the foregoing analysis, sign bilingual education is principally pillared on Cummins's (1981, 1984, 1989, 2000, 2006) Linguistic Interdependence Principle, which posits that there is a Common Underlying Proficiency (CUP) across languages which necessitate a positive transfer from a first to a second language. This is possible when there is adequate exposure to the second language and motivation to learn it (Glaser and Van Pletzen, 2012; Mayer and Leigh, 2010; Knoors and Marschark, 2012). According to Cummins (1981) the extent that instruction in the first language is effective in promoting proficiency in the first language, transfer of this proficiency to the target or second language will occur provided there is adequate exposure to the target or second language and adequate motivation to learn the target language. Put in another way the theory proposes that the extent that instruction in the first language is effective in achieving the proficiency, transfer of this proficiency to second language could occur provided that there is an adequate input of the second language and the learner is motivated to learn the second language (Cummins, 1981). In the successive section, this review explores the applicability of this hypothesis to sign and oral languages.

3. Application of Cummins's linguistic interdependence theory to sign bilingual education

Drawing from the foregoing narrative, Cummins's Theory of Linguistic Interdependence proposes that competence in L2 is a function of proficiency in L1 (Freel et al., 2011). For the deaf, this would entail that proficiency in an oral language (reading and writing) becomes a function of proficiency in Sign Language. Cummins' theory is in effect premised on the proposition that all languages share a common underlying proficiency (CUP) which allows for transferability between the languages despite difference in modality orientation. This analysis exposes that at the foundation of sign bilingual education is the need for strong proficiency in Sign Language (L1) if a deaf child is to effectively acquire the written form of the spoken language (L2) (Barker and Stark, 2015). Cummins (2000) thus argues that transfer between languages allows deaf children to learn both sign and oral language. This they achieve by utilising CUP to transfer conceptual knowledge and skills between the languages (Mounty et al., 2014). Giambo and Szecsi (2015) further elucidate that CUP is the one which facilitates interdependence between Sign Language (L1) and spoken language (L2) for the deaf. The authors also observe that it has long been established that skills transfer between languages is possible and does facilitate language and concept development in L2. Cummins (2006) in Humphries (2013) concludes his review of research saying data clearly shows the existence of CUP and the possibility of this transfer even between sign and oral languages alike.

4. Locating the common underlying proficiency (CUP) within sign bilingual education

Cummins's proposition of the common underlying principle (CUP) can be conveniently divided into two levels which are both relevant to sign bilingual education. For Garate (2012) these two levels of proficiency in a language are the social and academic levels. On one hand Cummins (2006) termed the social level of proficiency the Basic Interpersonal Communication Skills (BICS) which entails the use of language for face-to-face social interaction such as day-to-day communication (Rusher, 2012). Rusher also explains that language proficiency at the BICS level is used in social conversation. On the other hand, the academic level is called the Cognitive Academic Language Proficiency (CALP) and refers to the language of school, tests and textbooks containing discipline specific terminology and complex grammar (Garate, 2012). Knoors and Marschark (2012) also enunciate that children largely acquire BICS through informal means while schooling helps them develop CALP which forms the language for reading, writing, learning and reasoning.

Upon attaining competence in both BICS and CALP in Sign Language, deaf children are enabled to learn the spoken text literacy skills (reading and writing) using the natural positive transfer that occurs in learning of second languages (Glaser and Van Pletzen, 2012). According to these authors, CALP in Sign Language then acts as a scaffold to the development of text literacy skills in oral language. This would apply even though the modality between the first and second languages is different. However, Freel et al. (2011) argues that deaf children are often only exposed to both BICS and CALP when they arrive at school. This is because they experience impoverished access to Sign Language for social interactions at home and even for play with peers during the transitional period in which they acquire language. This analysis is often true with regards to deaf children of hearing parents and therefore provides a springboard for critiquing the envisaged compatibility of Cummins's theory with the tenets of sign bilingual education. Thus, despite compelling evidence, some scholars have vehemently critiqued the possibility of a transfer between sign and oral languages. Mayer and Leigh (2010) admit to the concerns that have been raised questioning about the applicability of the linguistic interdependence theory to sign bilingual settings. As a result, a fierce debate which has problematized sign bilingual education has ensued from such dissenting contentions (Swanwick, 2016) as a result.

5. Critiquing the applicability of Cummins's theory to sign bilingual education

The application of Cummins's theory to sign bilingual education has proved contentious in that some scholars argue that the modality difference between sign and spoken languages makes the application of the theory to sign bilingual education tenuous (Barker and Stark, 2015). In a landmark publication, Mayer and Wells (1996) argued that deaf children do not learn the written form of oral language through ordinary means since Sign Language has no written orthography upon which to validate second (oral) language learning. The researchers insinuate that deaf children usually attempt learning a spoken language when they have not even acquired fluent Sign Language skills. Mayer and Wells (1996) term this scenario 'a double discontinuity'. This Double Discontinuity Hypothesis

questions the possibility of transferability between oral and written languages when Sign Language has no written form of its own and when spoken language is not fully accessible to the deaf (Barker and Stark, 2015; Swanwick, 2010).

For Mayer and Leigh (2010), although not explicitly stated in the articulation of Cummins's theory, it can be taken as read that, for any transfer to be possible from first to second language, there should be a minimum level or threshold of proficiency in the first language. In sign bilingual education, this suggests proficiency in Sign Language prior to learning oral language. Unfortunately, this can be a challenge for particularly deaf children of hearing parents who have limited language skills. Mounty et al. (2014) query the relevance of Cummins's (1981) proposition in that there must be sufficient proficiency in the second language for one to use first language to further develop second language skills for sign bilingual education. Mounty et al.'s reservations emanate from the realisation that deaf children typically have restricted access to the spoken language which is used for reading and writing. In addition, for these deaf children who often arrive at school without Sign Language, there is also no social language provision before formal oral language instruction (Freel et al., 2011). In these regards, according to Mounty et al. (2014), CUP in sign bilingual education can only apply to conceptual knowledge, metalinguistic and metacognitive processes and therefore the transfer may not necessarily occur at vocabulary and grammatical levels. This is maybe understandable in that Sign Language grammar is unique from oral language grammar.

Often, the command of the first language can be assumed, but this is not safe with regards to sign bilingual education (Mayer and Leigh, 2010). The explanation behind this notion is the fact that 90%-95% of deaf children are of hearing parents and therefore do not have sufficient first language skills to support their learning of the second language. This is exacerbated by the fact that, at school these children are taught by hearing teachers for which Sign Language is their second language. This raises concern over the fairness of using Cummins's theory within sign bilingual settings (Tang, 2016). Therefore, with the exception of the 10%-5% of deaf children of deaf parents, language conditions in many sign bilingual settings are not conducive for natural Sign Language acquisition (Mayer and Leigh, 1978). Basing on such evidence, Mayer and Leigh (2010) conclude that Cummins's theory is therefore not necessarily valid to sign bilingual education practice particularly when deaf children of hearing parents are considered. They also conclude that, with delays in Sign Language acquisition, the theoretical benefits predicted by the Linguistic Interdependence Theory are unlikely to be fully realised. This means that deaf students whose sign and spoken languages may not therefore realise the cognitive and academic benefits of Cummins' theory which are also realised through interactions with the environment (Cummins, 2000 in Rusher, 2012). These conclusions are based on the fact that many deaf children begin school with little or no proficiency in Sign Language and at times with no language at all. This puts them at a decided disadvantage in sign bilingual education classes and compromises the intended benefits.

According to Tang (2016), while there might be no straight forward transfer of skills between sign and oral languages, Cummins's theory provides new insights upon which new interpretations of sign bilingual education could be pillared. As such, the foregoing concerns should not be misconstrued as a criticism of the application of Cummins's Theory of Linguistic Interdependence or a rejection of the possibility of sign bilingualism, but rather seen as just posing a discourse to sensitise on the need for models that promote maximal language development and inclusivity for the deaf learners (Mayer and Leigh, 2010). This is to suggest that despite the foregoing critiques, Cummins's Interdependency Theory remains the most valid of the frameworks within which sign bilingual education could be contextualized.

6. Challenging the critique of the applicability of cummins's theory to sign bilingual education

In a way to endorse the applicability of Cummins's theory, evidence still point to the fact that by applying the theory to sign bilingual education spoken language literacy will develop as a result of that transfer (Mayer and Leigh, 2010). Freel et al. (2011) later agreed that when applied to sign bilingual education, Cummins's theory asserts that proficiency in Sign Language puts one at a better disposition to learn the written form of a spoken language. For this matter, the outcomes of Cummins's research have demonstrated that, regardless of modality difference between sign and oral languages transfer between the two languages is possible and valid (Swanwick, 2016). Meanwhile, Tang (2016) reports that while Cummins's Linguistic Interdependence Hypothesis was developed to account for bilingual education in spoken languages, it has a strong appeal for sign bilingual education too. The author asserts that when the theory is applied to deaf learning contexts and given the validity of the common underlying proficiency (CUP) in sign bilingual education conditions, development of a strong

conceptual and linguistic foundation in Sign Language facilitates transfer of such skills to spoken language thereby supporting literacy and academic skills development in deaf children. The basis for this transfer is that CUP underlies all languages used by an individual despite modality differences (Rusher, 2012).

Barker and Stark (2015) confirm that Cummins's hypothesis has been adopted for sign bilingual education programmes with a solid basis on Sign Language proficiency to ensure a positive transfer to the written oral language. As sign bilingual education became established particularly in Scandinavia, the UK and the USA, Cummins's Linguistic Interdependence Theory became the major theoretical framework upon which the success of sign bilingual education could be predicted (Swanwick, 2016). Additionally, Swanwick (2016) is of the view that the foregoing critique is misdirected in that it is based on a narrow view of linguistic transfer with regards to literacy development and Sign Language complexity. The author blames the critique for assuming that there are no goals relating to the dynamic relationship between sign and language development in sign bilingual education. The critique according to Swanwick, also wrongly assumes that the only route to literacy considered in sign bilingual education is via Sign Language, ignoring the diversity and the nuances inherent in sign bilingual education with regards the dual equality of sign and oral languages. Notably, Cummins's (2006) view of linguistic transfer incorporates linguistic skills at the conceptual, metacognitive, pragmatic, linguistic and phonological knowledge levels in both languages. This confirms the validity of the applicability of Cummins' hypothesis to sign bilingual education. Tang et al. (2014) promulgate that replete evidence exists pointing to a positive interaction between sign and spoken languages at all the knowledge levels and confirm that this transfer can even take place across and between two or more dissimilar languages. The results of a study by Ausbrooks et al. (2014) confirm this transferability between Sign Language and oral language despite linguistic incongruence.

There is also emerging evidence at the lexical level demonstrating a positive correlation between extensive Sign Language and written vocabularies (Hermans et al., 2008; Holzinger and Fellingner, 2014 in Swanwick, 2016). This new evidence buttresses the fact that transfer at the semantic lexical and grammatical levels can indeed be obtained in sign bilingual education settings (Tang et al., 2014). This puts to rest Mouny et al.'s (2013) contention that CUP in sign bilingual education arrangements is limited to the conceptual knowledge and metalinguistic, metacognitive levels and therefore does not extend vocabulary and grammatical levels. These new evidences also challenge Knoors and Marschark (2012) claim that transfer of linguistic skills in sign bilingual education is limited mostly to CALP and does not happen automatically. In effect, Cummins (2007) confirms that language interdependence does exist between Sign Language and oral language regarding the transfer of pragmatic aspects of language and more complex linguistic elements such as phonological awareness.

Results of a longitudinal study conducted by Lillo-Martin et al. (2012) demonstrate bidirectional cross linguistic transfer between a sign and a spoken language. Similarly, Hermans et al. (2010) earlier argued that it is possible to facilitate written spoken language development for deaf children by utilising Sign Language abilities to achieve a cultivated transfer between the two languages. These evidences continue to suggest that for the deaf, the more accessible language which is Sign Language can be used to promote the less accessible language which is spoken language (Mouny et al., 2014). This is interpreted as confirming that a well-developed Sign Language is the basis for deaf children to learn oral language literacy skills (Rudner et al., 2015). In any case there is additional growing evidence that the two languages both depend on one another and influence one another (Giambo and Szecsi, 2015). For example, a research programme on language and literacy conducted by the University of California found a positive relationship between deaf children's sign language fluency and reading scores (Humphries, 2013). With this link between Sign Language and spoken language, the application of Cummins's Linguistic Interdependence Hypothesis as to sign bilingual education has become even more evident.

7. Discussion and conclusion

It should ultimately be put to record that after all, Cummins's theory has been firmly established with regards sign bilingual education and has hitherto been found to be so valid that it has since influenced policy and practice regarding sign bilingual education in countries such as Scandinavia, the UK and the USA (Swanwick, 2010). Accordingly, the transfer which is envisaged by this theory is not a mere hypothesis but has been proven to be relevant to both general bilingual and sign bilingual education (Garate, 2012). The author is emphatic that the transfer is also not limited to experiential activities such as the physical acts of reading and writing but also includes more complex cognitive skills. Thus, there is merit in envisaging sign bilingual education on the basis of Cummins' theory since it provides adequate evidence of the interdependence of sign and oral languages in spite of

modality controversies. There is no other theory, according to the evidences exposed in this treatise that has been more convincing in laying a foundation for sign bilingual education than Cummins's Linguistic Interdependence theory. While, this can initially be quite complex particularly for deaf children of hearing parents, once established, the envisaged interdependence should offer strong conditions for successful sign bilingual education. It is incumbent on these realisations that frameworks for operationalizing sign bilingual education should therefore be premised on the epistemologies of Cummins's hypotheses. Basing sign bilingual education policies on the theory is a valid practice because it bases on experimental and theoretical evidence. Of course, countries may want to modify their frameworks according to multicultural fundamentals that tie together the national Sign Language to the dominant oral language (s) as per national constitutional demands. For example, where there is more than one dominant or instructional oral language, there is need to explicate how the oral languages will be represented in the sign bilingual matrix. From this analysis, one can firmly conclude that Cummins's Linguistic Interdependence theory is indeed compatible with the sign bilingual model of educating deaf children in mainstream schools.

In essence, sign bilingual education is a natural language contact phenomenon reflecting on the daily social interaction where sign and oral languages are used to achieve communication between hearing and deaf individuals (Swanwick, 2016). Barker and Stark (2015) concurs that deaf people have always had a way to represent the spoken language on their hands, at times using contact signing in a spoken language like manner while maintaining some of the visual-spatial grammatical features of Sign Language. These evidences and arguments endorse the transferability envisaged between sign and spoken languages and designate Cummins's theory as the only not debatable model in the practice of sign bilingual education. In the same vein, models that borrow from Cummins's theory could only be the only other complimentary alternatives in supporting sign bilingual education as a strategy for inclusion. I can therefore further conclude that sign bilingual education cannot have any other theoretical basis besides that which recognises the interdependence of sign and oral language. This interdependence is beneficial for both the deaf and hearing children in the learning of oral and sign languages respectively.

Recommendations for practice

It is clear from treatise that adopting and embracing Cummins's Linguistic Interdependence theory to the practice of sign bilingual education is not only complex but controversial as well. The controversies mainly evolve from the issue of modality difference between sign and oral languages. To mitigate these controversies and facilitate efficient practice of sign bilingual education, the following recommendations are put forward:

- ✓ Early exposure of deaf and hearing children to both sign and oral languages;
- ✓ Equal recognition and equitable use of sign and oral languages;
- ✓ Equal recognition and exposure to both hearing and Deaf culture for hearing and deaf children;
- ✓ Adoption of a multi-culturally and multi-linguistically sensitive operational framework to inform sign bilingual education policies.

References

- Ausbrooks, M.M., Gentry, M.A., Martin, G.A., 2014. Exploring linguistic interdependence between American sign language and English through correlational and multiple regression analyses of the abilities of biliterate deaf adults. *Int. J. Engl. Ling.*, 4(1), 1-18.
- Baker, M., Stark, M., 2015. Building connections between the signed and written language of signing deaf children. Victoria: Victorian Deaf Education Institute. www.deafeducation.vic.edu.au
- Cummings, J., 1989. Linguistic interdependence and the educational development of bilingual children. *Rev. Educ. Res.*, 49(2), 222-251.
- Cummins, J., 1981. The role of primary language development in promoting educational success for language minority students. In California State Department of Education (ed). *Schooling and minority students: A theoretical framework* (3-49p). Los Angeles: National Dissemination and Assessment Centre.
- Cummins, J., 2006. The relationship between American sign language proficiency and English academic development. A review of the research. <http://www2.hihm.no/minoritit/KonfOkt/ASL>

- Dammeyer, J., 2014. Literacy skills among deaf and hard of hearing students and students with cochlear implants in bilingual/bicultural education. *Deafness Educ. Int.*, 16(2), 108-119.
- Freel, B.L., Clark, M.D., Anderson, M.L., Gilbert, G.L., Musyoka, M.M., Hauser, P.C., 2011. Deaf individuals' bilingual abilities: American sign language proficiency, reading skills and family characteristics. *Psychol.*, 2(1), 18-23.
- Garate, M., 2012. ASL/English bilingual education: Models, methodologies and strategies. *Vis. Lang. Vis. Learn. Res. Brief*, 2(8), 1-8.
- Giambo, D.A., Szcecsi, T., 2015. Promoting and maintaining bilingualism and biliteracy: Cognitive and biliteracy benefits and strategies for monolingual teachers. *Open Comm. J.*, 9(1), 56-60.
- Glaser, M., Van Pletzen, E., 2012. Inclusive education for deaf students: Literacy practices and south African sign language. *S. Afr. Ling. Appl. Lang. Stud.*, 30(1), 25-37.
- Hermans, D., Knoors, H., Ormel, E., Verhoeven, L., 2008. The relationship between the reading and signing skills of deaf children in bilingual education programs. *J. Deaf Stud. Deaf Educ.*, 13(4), 518-530.
- Hermans, D., Knoors, H., Verhoeven, L., 2010. Assessment of sign language development: The case of deaf children in the Netherlands. *J. Deaf Stud. Deaf Educ.*, 15(2), 107-119.
- Holzinger, D., Fellingner, J., 2014. Sign language and reading comprehension: No automatic transfer. In: Marschark, M., Tang, G., Knoors, H. (eds.), *Bilingualism and Bilingual Deaf Education*. New York, OUP.
- Humphries, T., 2013. Schooling in American sign language: A paradigm shift from a deficit model to a bilingual model in deaf education. *Berk. Rev. Educ.*, 4(1), 7-33.
- Knoors, H., Marschark, M., 2012. Language planning for the 21st century: Revisiting bilingual language policy for deaf children. *J. Deaf Stud. Deaf Educ.*, 17(3), 291-305.
- Lillo-Martin, D., Koulidobrova, H., Quadros, R.M., Chen Pichler, D., 2012. Bilingual language synthesis: Evidence from WH-questions in bimodal bilinguals. In: Biller, A.K., Chung, E.Y., Kimball, A.E. (Eds.), *Proceedings of the 36th Annual Boston University Conference on Language Development* (302-314p). Somerville, MA: Cascadia Press.
- Mayer, C., Akamatsu, C.T., 1999. Bilingual-Bicultural models of literacy education for deaf students: considering the Claims. *J. Deaf Stud. Deaf Educ.*, 4(1), 1-8.
- Mayer, C., Leigh, G., 2010. The changing context for sign bilingual education programs: Issues in language and the development of literacy. *Int. J. Biling. Educ. Biling.*, 13(2), 175-186.
- Mayer, C., Wells, G., 1996. Can the linguistic interdependence theory support a bilingual-bicultural model of literacy education for deaf students? *J. Deaf Stud. Deaf Educ.*, 1(2), 93-107.
- Mounty, J.L., Pucci, C.T., Harmon, K.C., 2014. How deaf American sign language/English bilingual children become proficient readers: An emic perspective. *J. Deaf Stud. Deaf Educ.*, 19(3), 333-346.
- Rusher, M.A., 2012. Language interdependence between American sign language and English: A review of empirical studies. A paper presented at the Association of College Educators of the Deaf and Hard of Hearing conference, New Orleans, LA, 4-8 March, 2008 (Revised).
- Swanwick, R., 2016. Deaf children's bimodal bilingualism and education. *Language Teaching*, 49, 1-34. Available on: http://journals.cambridge.org/abstract_S0261444815000348
- Swanwick, R.C., 2010. Policy and practice in sign bilingual education: Development, challenges and directions. *Int. J. Biling. Educ. Biling.*, 13(2), 147-158.
- Tang, G., 2016. Sign bilingualism in deaf education. In: Garcia et al. (Eds), *Bilingual and Multilingual Education*. *Encyclopedia of Language and Education*. https://link.springer.com/referenceworkentry/10.1007%2F978-3-319-02324-3_35-2
- Tang, G., Lam, S., Yiu, C.K., 2014. Language development of deaf and hard of hearing students in a sign bilingual and co-enrolment environment. In: Marschark, M., Tang, G., Knoors, H. (eds), *Bilingualism and Bilingual Deaf Education*. New York, Oxford University Press.

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