

SA is failing deaf and hard-of-hearing learners: Can a bilingual model of education be the solution to acquiring literacy?

Deaf and hard-of-hearing learners comprise 5% of the school population, but their school attendance drops significantly between their early and late school years. Challenges in the acquisition of literacy may be at the root of their limited progress in the education system. Two experts in the field of Deaf education shared their insights at a recent HSRC seminar. *Antoinette Oosthuizen* reports.

When acquiring language, children who are deaf and hard of hearing follow roughly the same steps as those who can hear, but late identification of hearing loss, limits in the South African Deaf education system, and other environmental challenges prevent many deaf and hard-of-hearing children from reaching their full potential.

This is partly because many of these children don't become fully literate in a written language, said Prof. Claudine Storbeck, director of the Centre for Deaf Studies at the University of the Witwatersrand, and Lynette Diederichs, head teacher of the Quest Model School near Durban. They believe that bilingual models of teaching, for example, one that combines good quality South African Sign Language and English, which becomes fully accessible to the deaf or hard-of-hearing child through the support of Cued Speech, might be a solution.

Not enough done

"If we have 12 years of schooling for deaf children and they are still not learning the basics, we need to ask ourselves if it is ethical," Storbeck said at the seminar.

She said that there are 43 schools for deaf and hard-of-hearing learners in the country, the majority with excellent school facilities. However, there are currently no minimum qualifications

or requirements in order to become a teacher of the Deaf. Internationally, teachers of the Deaf are required to have a master's degree in Deaf education.

"In fact, to work in Deaf education, you should actually be a specialist in language development, the brain and literacy," she said, adding that mere access to Sign Language is also not enough.

The early bonds

Storbeck emphasised that children typically do not learn language, but acquire it almost effortlessly.

"I believe that all children are born with the equal neural capacity to learn, unless a child has additional cognitive challenges or delays. All brains are hard-wired for language, an innate knowledge of grammar that serves as the basis for language acquisition," said Storbeck.

She believes the first six months is a crucial time for children to acquire the building blocks of language, especially for deaf children, but that their environment often hampers the process long before a child reaches the education system, for example, when there are attachment problems with the main caregiver.

"We think and bond emotionally with our families through language, so when there is a language access problem, these bonds may not

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develop, and that is one of the reasons why some deaf adults feel that they don't have a bond with their families. It is not only because the family did not use Sign Language or did not get support, but rather because crucial shared early communication was disrupted."

Early language acquisition

Storbeck said that the foundations of acquiring language and learning to communicate with the world start in the first month of a child's life.

Children acquire language through their earliest relationships in the home, for example, when the father or mother and baby copy each other's cooing and babbling, the infant learns about turn-taking, which later becomes conversational turn-taking through which we experience every-day life. Babies also soon learn that we do not use sounds or words simply to make noises but with the intent of getting attention, sharing how they feel or what they need.

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Late identification of hearing loss

Internationally, children are screened for hearing loss at birth or no later than one month of age. Hearing loss is identified by three months and by six months they get their first hearing aids and early intervention such as home-based family support. In South Africa, current statistics show that children are diagnosed on average by 18 months and many only receive 'early' intervention after the age of two years.

The importance of literacy

Dr Cas Prinsloo from the HSRC's Education and Skills Development programme, said becoming literate is more challenging for deaf and hard-of-hearing children, because they start learning language in a pictographic way, using symbols for words, which they then need to link to the alphabet in order to read and write English.

Diederichs, who has been deaf since the age of nine, shared her experience of working with a group of deaf and hard-of-hearing children at the Kwa Thintwa School for the Deaf at Inchanga in KwaZulu-Natal over five years.

The children started with her when they were 8-10 years old in Grade 0, but many were severely language-delayed with minimal Sign Language or grasp of their home language.

She said exposing children to consistent and complete Sign Language enabled them to think, reason, express and share their feelings, and to develop good cognition. Initially, this happened with her class, but acquiring English literacy was a bigger challenge.

"Sign Language does not have its own written language. Therefore, to develop literacy skills, the deaf children had to be exposed to a language (in this case English) that is traditionally spoken, but because of their deafness, they were not able to access English easily."

Developing a solution

Diederichs said it was difficult to teach using a blackboard, because many children were not ready to read or had no internalised English to understand what they were reading. Relying on lip-reading was also unreliable because many sounds look the same on our lips.

"Lip readers can use the context of the sentence to fill the gaps, but it is a catch-22. To get that context, they need a strong language base and for them to get a strong language base, they need to be able to lip-read."

Fingerspelling was another option, but it also means little until they can associate it with words, which comes at a later stage of development.

She then came across groundbreaking research into how the brain activates when people use Sign Language exclusively, or when they only speak.

"The [findings](#) rocked the audiology world. Regardless of whether Sign Language or voice was used, the same area in the brain was activated, the auditory cortex. It is not so much about whether we are using voice, or sign, but about the pattern in the language that the brain reads."

Based on this finding, Diederichs realised that a deaf child does not have to hear or speak; they need access to a system that provides the pattern of the spoken language. It is therefore crucial that any language that they are exposed to must be in its full intact form, not mixed.

Progress

Diederichs then decided to add Cued Speech and a UK phonics programme called THRASS to her teaching methods.

Cued Speech is a visual system of communication that uses eight hand shapes in four positions near the mouth to clarify the lip patterns of normal speech. With the structure of spoken language made visible, deaf children see all sound units of speech as clearly as hearing people can hear them, even without hearing aids. This eliminates the confusion of lip reading.

Moving away from the traditional alphabet where one letter is associated with a single sound to teach phonics, the THRASS system teaches 44 speech sounds (24 consonants and 20 vowels) and their related 120 key spellings in written English. Children learn that the same letters can make different sounds depending on where they are used in a word.

The Kwa Thintwa School for the Deaf was the first school in South Africa to use Cued Speech in its Foundation Phase as an educational tool to provide full access to English in conjunction with the THRASS phonics literacy programme in 2006.

Research with Quest

The establishment of the Quest Model School was initiated by a group of parents who were frustrated by the lack of government support when raising concerns regarding the education of their deaf and hard-of-hearing children. Some of these parents had received home-based early intervention support from HI HOPES and knew that their

deaf children had the right to equal education opportunities. At Quest, Diederichs uses South African Sign Language and English, which is provided through Cued Speech in order to boost English literacy. Additionally there is a deaf teacher who teaches South African Sign Language as a first language and they are supported by a hearing teacher assistant.

The teachers will complete scholastic, neuropsychological and socio-emotional assessments to evaluate the model.

What needs to happen in SA?

Storbeck believes that the South African Deaf education community should question the status quo and that something drastic needs to be done to increase levels of education. "Also, the fact that something was written in the US or said by a researcher does not mean it is right. We need to find local solutions by tapping into research on language and literacy development and how this can be implemented in the Deaf education context."

She said that researchers need to look into new approaches to Deaf education and literacy acquisition; and teachers need formal training as specialists in the field of Deaf education.

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