

ISOLATION BACKGROUND MATERIAL

Less than 100% comprehension in class is not acceptable.

Deaf children may be the only such child in their school. Children of deaf adults may be viewed as being 'different', and can therefore be at risk of bullying.

Deafness and reading

Dr Abram Stern, Institute of Psychiatry, King's College, London

Deaf children can develop phonological awareness even when their speech ability and auditory experience is poor.

Ninety-five per cent of profoundly deaf school-leavers only reach a reading-age of nine. This functional illiteracy means that even the nuances of stories from basic tabloid newspapers are beyond the reach of many deaf adults. Recent surveys show that even since Conrad's (1979) seminal work, *The Deaf School Child*, not much has changed, even though much deaf education in the UK has metamorphosed from an oral to a signing basis. It would appear that whether a school's language policy is sign or speech based is irrelevant to helping deaf children become competent readers.

Poor language exposure

About one in every 2,700 children is born with profound hearing loss and even more suffer lower levels of hearing loss. Ninety per cent of deaf children are born to hearing parents where deafness will be completely unexpected. Too often, hearing loss is not diagnosed until children are 12 months old, when they will have missed out on a crucial year of initial language acquisition.

Only a few hearing families of deaf children learn competent manual communication and the majority of children experience extremely poor social and family interaction.

In most families communication between parent and deaf child is through oral language. Less than half the information needed to discriminate the different sounds of English speech is available from lip-movements. Thus, the process of understanding spoken language is extremely difficult for the deaf child. This often leads to a low intensity of language stimulation and in turn to a low intensity language exposure for the deaf child.

The clearest evidence that deaf children have poor language development comes from an examination of the level of vocabulary. The majority of deaf children starting school aged four or five years have a vocabulary level of fewer than 500 words. In comparison, hearing children at this age have an expressive vocabulary of 3,000-5,000 words.

Phonological awareness

Many people are surprised at the idea that deaf children could have such problems in learning to read, and this is because they- underestimate the crucial role of language sound, i.e. phonological awareness, in learning to read. Familiarity with nursery

rhymes enhances children's sensitivity to component sounds in language, which leads to better progress in reading and spelling.

It seems unlikely that deaf children, who cannot hear, could have access to phonological skills that rely on sound. This represents something of a conundrum when thinking about how best to teach reading to deaf children. However, I and my colleague, Usha Goswami, (2000) found that some deaf children can develop some phonological skills through exposure to language, albeit limited, even when their speech ability and auditory experience is poor. Young deaf children had to pick a nonsense word that 'sounded' like the name of a picture. For example, under a picture of a door was a list of nonsense words (e.g., "daw", "diw", "dak", "taw") from which the correct homophone had to be picked. The children's accuracy rate was 64 per cent, which was far above the 25 per cent chance level. This result showed that deaf children were able to assemble the phonemes of the nonsense words to generate a phonological sequence for the word. This phonological representation was then used for comparisons with the real word (i.e. "door").

This startling result poses a difficult question about the origins of phonological awareness. The fact that even deaf children seem to develop phonological awareness in the most adverse circumstances, underlines its importance in language development and consequently in acquiring literacy skills. Phonological structures can develop for either sign or oral languages. There have been several analyses of the language development of deaf children of deaf parents. For these children their native language is sign and they rarely have access to speech. They follow the same developmental path for language as hearing children. They can analyse and structure sign language into grammatical, morphological and phonological components. Deaf children face enormous hurdles in language development; they are unlikely to develop competent literacy skills. An enriched language experience is the key to developing phonological skills and to becoming literate. Improving the level of language exposure for the young deaf infant is also the key to overcoming the social and emotional isolation experienced by many deaf children.

Perhaps the debate about the use of signing or oral language for educating deaf children is not as important as thinking about what is the best way of maximising language input. Teaching strategies that enhance the phonological awareness of deaf children may help deaf children become literate. However, the best chances for the deaf child learning how to read is to ensure that they have a rich language experience during infancy.

Reference and further reading

Conrad, R (1979) *The Deaf School Child*. London: Harper & Row.

Sterne, A and Goswami, UC (2000) 'Phonological awareness of syllables, onset-rime units and phonemes in deaf children' in *Journal of Child Psychology & Psychiatry & Allied Disciplines*, vol. 41, no. 5, July 2000, pp. 609-626.

Heather Artinian is a precocious little six-year old who has decided that she wants to change her world from one of being deaf to hearing. The reason for her decision is a controversial medical device, the cochlear implant, which would help Heather to hear. With Heather's desire as a springboard, the fine documentary, "Sound and Fury," explores the struggle for identity of a deaf family in the hearing world. It also attacks

the controversial issue of turning our children into robots dependent on the kindness of those who can hear, forsaking their soundless roots.

Robin:

When one first hears of the subject matter of "Sound and Fury," a cure for deafness in children through surgery and implant, it sounds like a no-brainer. Of course, if a child is born deaf, the best thing, the right thing, to do is to correct that deficiency. The cochlear implant is installed inside the child's skull and is attached to an external connector that, in turn, connects to a Walkman-like device that the child must carry in order to hear. When implanted at a very young age, the device successfully allows the child to hear and, thus, speak. The problem is, as a child gets older in the deaf world, they become assimilated into it, making the value of the implant to decrease, proportionately, with age.

Heather's two brothers and her parents, Peter and Nita, are all deaf. Peter is a near-militant leader of the anti-implant deaf community on Long Island and is stunned by his daughter's desire to enter the hearing world. Nita is initially encouraging, but, when she finds out that implant would not work for her - an adult mind would find it nearly impossible to assimilate the cacophony of sounds that would invade their silent world - she joins Peter in his adamancy against the process. They also fear that their silent world, which revolves around American Sign Language, will grow increasingly isolated as their children are given the chance to leave the realm of the deaf.

So you say to yourself, "Wow, they're right to want to preserve a culture of necessity and keep their children close." Then, docu filmmaker Josh Aronson and his team shift gears. Peter's sister, Mary, and her husband are blessed with the birth of twins, but one of the babies is deaf. The hearing couple learn of the success of the cochlear implant and immediately see the device as a savior for their child. The whole controversy over the implant is focused on the Artinians and their nuclear family, both deaf and hearing.

Peter's adamant anti-implant stance is argued just as strongly against by his mother, who had to learn to adapt to the life of a deaf child and had first hand experience of the pain and the prejudice a deaf person must face in the hearing world. Peter wishes to preserve a world where he can freely communicate with his family. He also sees that the independent and adaptive world of the deaf is going to close in upon him and him and his family. Peter is, I think, justly afraid of being left alone, deaf, in a hearing world.

I find it amazing that a subject that, on the surface, is so cut-and-dried, turns out to be one of the most intelligent and thought-provoking documentaries I have ever seen. It presents both sides of the controversy in a fair, even-handed manner that gives ample food for thought. Each side's case is well represented in this familial microcosm of a process that can, indeed, change the world of the deaf. Unfortunately, the implant will leave those untreatable in a constantly contracting world that will garner less and less understanding or sympathy from the hearing world as time goes forth. Peter argues, too, that the process is extremely invasive and anything but minor, but this argument has to be discounted. As medical technology progresses, other, less invasive, devices will be developed, making Peter's a moot point. The real issue is the isolation and loss of a culture that has lived and survived among us hearing folk for thousands of years.

"Sound and Fury" does exactly what a documentary is supposed to do - open your eyes to another world unfamiliar to you. It does that and makes you do an awful lot of thinking, too. I give it an A-.

Laura:

Cochlear implants are bionic devices which feed sound waves to the brain's auditory nerve. When surgically implanted in young deaf children, the results can be amazing - a child deaf since birth can be speaking completely normally within a couple of years. Sound like a no-brainer of a medical solution? Director Josh Aronson's "Sound and Fury" documents the incredibly complex arguments both for and against the device by following just one family on Long Island, New York.

First we meet Peter Artinian, the deaf father of three deaf children. He states 'I'm happy being deaf. It's very peaceful.' Upon the birth of each of his children he was happy to find they were 'just like me' and his wife (their mother) Nina.

His hearing sister Mary and her husband are horrified to find that her family's deafness has been inherited by their son and are told about cochlear implants. They witness a five year old girl hearing and speaking like a non-handicapped child two and a half years after receiving a cochlear implant and are convinced that this is the way to go. Peter is not only incensed, he's very 'vocal' about it. Then his eldest, Heather, expresses interest in becoming a hearing child as well. Family battle lines are drawn for three generations.

While the advantages may be obvious, the surprise is that there are compelling arguments made against the procedure, not the least of which is the invasiveness of the surgery and device itself (it must be implanted within the skull and is connected to the ear via a rather large plastic piece plugged in behind the ear). The nature of deaf culture is explored as is the relationship between deaf/hearing parents and their deaf/hearing children. The deaf adults even have some good comebacks when pressed on the educational advantages of hearing.

The filmmakers use some ingenuity to showcase the argument. We witness the silence of deaf communication and then see a signed conversation that is dubbed rather than subtitled to illustrate the difference between the two worlds. 'Talking head' interviews begin with Peter Artinian and are intercut with various family members in various groupings out in the real world - gradually, more 'talking head' one-on-ones are added as the arguments and their offshoots begin to take shape. Irony is allowed to speak for itself, such as when Heather says 'I don't want to sign, I want to speak' - in sign. Peter and Mary's deaf father makes some rather arresting observations. Things get really interesting when Peter's wife Nina, begins to sway to the pro-implant side, even considering the procedure for herself.

"Sound and Fury" is a provocative documentary that is sure to make its audience consider things about deafness and handicaps in general that it might not otherwise.

Breaking the Sound Barrier

By Michael Yared — February 1, 2006

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Parenting any child is a difficult, if rewarding, process, but raising a son or daughter with a hearing disability presents unique challenges. The first hurdle comes with the initial diagnosis of hearing loss. Some children are born with genetic or congenital deafness, in which the child cannot hear anything. Others at a relatively early age suffer total deafness or some deterioration in their hearing, owing to such illnesses as meningitis or measles. Those children who can hear some sounds and who can use that hearing for communication purposes are classified as hard of hearing (HOH).

Terminology is a sensitive issue in the deaf world. In the past, the term “hearing-impaired” was used to identify both deaf and HOH people, but both groups, as they have differing needs, define themselves separately. Likewise, adherents of the Deaf Pride movement describe themselves as “culturally Deaf” to indicate that they are not handicapped.

Let's talk?

Because unmanaged hearing loss can affect a child's language, educational, and social/emotional development (the web site Help Kids Hear [www.helpkidshear.org] estimates that children with even mild hearing losses can miss up to 50 percent of classroom discussions), the crucial decision for parents after diagnosis is on communication. Should the child learn to speak orally or to sign? Or do both? Parents today face a bewildering array of methodologies (American Sign Language [ASL], cued speech, total communication, oral/auditory verbal approaches, speechreading, and more) and determining what is best for their child can be overwhelming.

Adding to the difficulty in the parental decision-making is the controversial issue of cochlear implants (CI). Developed 20 years ago, the device, attached surgically to the cochlea in the ear, offers another way to hear when hearing aids prove ineffective. However, not every child is a suitable candidate, and the complex postsurgical rehabilitation, including extensive speech therapy and counseling, is a huge investment. In addition, some in the deaf community see the CI, which allows the deaf/HOH person to move out into the hearing world, as a rejection of deaf culture.

See below for our
web addendum

Schooling choices

Parents of children with hearing difficulties will have to work with various professionals—doctors, psychologists, audiologists, speech therapists, teachers—in determining the most appropriate schooling for their child. This is not always an easy

process as the professionals often disagree, and some can be patronizing in insisting that as experts they are right and that parents must listen to them.

Among the educational options facing parents are residential, usually state-funded, schools for the deaf and mainstreaming, in which public schools offer classes with deaf teachers and hearing teachers who can sign, along with sign language interpreters for deaf students who want to take classes with hearing students. Although the Individual with Disabilities Education Act requires each child to have an Individualized Education Program (IEP), many special education classes in public schools tend to focus on children with learning disabilities.

And, finally, parents have to consider how to build their deaf/HOH child's social skills and maintain family harmony. Communication problems can lead to social isolation. At the same time, intense parental focus on the deaf/HOH child may create sibling tension.

Signs of help

Public libraries can support parents of deaf/HOH children by offering resources (books, periodicals, videos, and online links) that address their key concerns. A primary source for collection development librarians will be Gallaudet University Press (gupress.gallaudet.edu), which offers titles on sign language, deaf special education, and deaf history as well as memoirs by parents of deaf children (e.g., Richard Medugno's *Deaf Daughter, Hearing Father* and Tressa Brower's *Alandra's Lilacs*, LJ 9/1/99) and signing books for young readers. It also publishes the professional periodical *American Annals of the Deaf*, which includes an annual reference issue of schools and other educational programs for the deaf.

Mail-order publisher Butte Publications (www.buttepublications.com) features educational materials for deaf/HOH students and their families, including videos and Spanish-language books, while DawnSignPress (www.dawnsign.com) specializes in ASL books and videos.

Other useful information can be found through such organizations as the National Association of the Deaf (www.nad.org) and the Alexander Graham Bell Association for Deaf and Hard of Hearing (www.agbell.org). The National Deaf Children's Society (www.ndcs.org.uk), a British organization, offers free downloadable publications in English as well as other languages such as Urdu, Bengali, Hindi, and Turkish.

A starting point

Although seven percent of deaf children are born into deaf families, the following bibliography will focus primarily on materials for hearing parents (several of the titles below do address the issues that deaf parents face). Owing to space considerations, this list serves as a starting point, offering an overview of the key parenting concerns rather than a comprehensive listing. Titles on specific issues such as sign language and children's books are not included.

However, there are two excellent webliographies from Gallaudet University and Central Rappahannock Regional Library, Fredericksburg, VA, that can help collection development librarians identify further resources and publishers: “Helpful Books & Resources for Parents of Children Who Are Deaf or Hard of Hearing” (clerccenter.gallaudet.edu/InfoToGo/563.html) and Virginia Johnson's “Deafness: Choices of Communication” (www.answerpoint.org/columns2.asp?column_id=204&column_type=webliography).

While many of the listed titles are textbooks for teachers, they are accessible to parents who want to keep up-to-date on the latest research. Starred titles [] are essential for all collections.

The isolation of deaf children in schools

By Professor Terezinha Nunes
Department of Psychology

The isolation of deaf children in schools Deaf children are likely to feel isolated when they are placed in mainstream schools, though they are not disliked or rejected. So says a team of Psychology investigators from Oxford Brookes and Oxford universities, investigating deaf children's social relationships in mainstream schools. This implies that the current integration policy should be assessed, considering its cognitive and social consequences for pupils.

The team investigated the social adaptation of nine deaf pupils in two mainstream schools with measures used to identify pupils at risk from social problems - sociometric status and peer rating. Sociometric status is defined by analysing positive and negative nominations obtained from peers. This defines pupils as popular, average, neglected or rejected, and allows for identifying friendships. Peer ratings are obtained by averaging peers' judgements of how much they enjoy playing with each peer. The team found that deaf pupils were not more likely to be rejected, but they were more likely to be neglected by their peers. They were also less likely to have friends in the classroom. The average peer ratings received by deaf pupils were not significantly different from those of hearing pupils.

The team consisted of Terezinha Nunes and, Ursula Pretzlik of the Department of Psychology, Oxford Brookes University, and Jenny Olsson of the Department of Psychology, Oxford University. Their work is written up in Nunes, T., Pretzlik, U., & Olsson, J. (2001) 'Deaf children's social relationships in mainstream schools' *Deafness and Education International*, 3, 123-136.

One size fits all?

Tricia Kemp, Co-ordinator of CICS

Sixteen years ago when my profoundly deaf son was just six months old I was told that his first language would be BSL and that he would need special education - a sweeping statement. At that time, however, it has to be said that both predictions were likely to be true.

How different things are today! With the advent of cochlear implants things have swung the other way. Profoundly deaf children are having cochlear implants and parents are being told that normal speech and mainstream education are the expectation - another sweeping statement.

Yes, technology is a wonderful thing and clearly the benefits of cochlear implantation can be enormous but in advising parents of newly diagnosed deaf babies that implants are available and can make speech and mainstream education possible, some parents, obviously greatly relieved by this news, will never fully accept that their child is and will always be deaf. They are desperate for their child to be in mainstream education because that indicates 'normality' - whatever that means. Some are looking for what they want for their child rather than what that child actually needs.

As the parent of a deaf child and the Co-ordinator of CICS*, I would like to make not a sweeping but a common sense statement regarding education: it is not possible to compartmentalise any group of children, especially if they are deaf or have other special needs, into one type of educational provision.

Outcomes from paediatric cochlear implantation vary enormously and will continue to do so in the future especially as children are being implanted younger and younger before the existence of other difficulties has been identified. Cochlear implantation is not a miracle that immediately gives access to mainstream education for all children. Undoubtedly it provides this for some but even within this group the amount of support necessary will depend on the individual child. Other children will need more support and will be better suited to placement in a Hearing-Impaired Unit ('Unit') where more specialist help is available and others will need placement in a special school.

Amongst the population of deaf children, with or without cochlear implants, some will need sign support, others are oral (to varying degrees), some will need very little support, others will need a great deal; and some will have additional difficulties.

It is clear that the needs of deaf children are far too diverse to be met in any one type of educational placement.

Inclusion sounds like a great idea and for some deaf children it works well. Placement in a local school gives the opportunity for friends and social opportunities close to home and, for the child and the parents, avoids the stress of a journey to a Unit or school for the deaf which may be some distance from home. If a mainstream setting is a small class with good acoustics, a competent teacher and appropriate support available if needed, then obviously an able deaf child will stand a good chance of accessing the curriculum and keeping up. Unfortunately, however, in the real world, a class can be around thirty children, acoustics are poor and a good deal of a teacher's energy is taken up in keeping control rather than teaching. In a class of thirty there will be a wide range of abilities to address. The last thing a mainstream teacher needs is to spend time making sure a deaf child has understood the content of a lesson and to deal with any equipment that the child may have.

There are about 40% of deaf children with additional difficulties and of the other 60% there will be many who will only thrive in a mainstream setting with a significant

amount of support but will they get it and, if they do, will the Classroom Assistant have had appropriate and sufficient training to work effectively with deaf pupils? In many cases this scenario is merely an excuse for cost-cutting. Placing a deaf child in a mainstream school with limited support is the cheap option; but if there is little, or no support, it requires immense concentration and is exhausting for the child to understand and keep up with the teacher, let alone catch the incidental comments of their hearing peers throughout the school day. Inclusion? Perhaps, but at what cost to the deaf pupil?

If, in the other extreme, a child has and is totally reliant upon full-time, one-to-one support in order to access the curriculum this will exclude that pupil from learning from the class teacher with the hearing pupils. A full-time Classroom Assistant is unlikely to be a qualified teacher and faces the difficult task of effectively translating a lesson into language that can be understood by a deaf pupil who may be functioning at a lower linguistic level than hearing peers in the class. How can this be described as inclusion?

The danger of blanket inclusion is that it actually leads to total exclusion, leaving some deaf children unable to manage socially with hearing peers and unable to keep up with the pace of learning, thus falling behind and failing to reach their potential. Some Hearing-Impaired Units are able to provide an appropriate mixture of specialist teaching in small groups for specific subjects and support during integration into mainstream classes but more and more of these provisions are becoming mainstream based rather than Unit based, resulting in children struggling to keep up in a setting that is not specifically designed to meet their needs, ie mainstream with support, as opposed to the more structured and supportive environment provided by a Unit.

It is vital to have good early intervention to enable deaf children to build the foundations for learning at a later stage. At secondary school the pace of learning picks up enormously. A deaf child may already have a language delay and will simply not manage to keep up with the vast amount of new vocabulary presented to pupils at this stage of the curriculum, resulting in an ever-increasing language gap making it extremely difficult, if not impossible for the child to access the curriculum at an age appropriate level.

Delayed communication causes problems outside of, as well as inside, the classroom. Good communication skills are vital if a deaf child is to develop real friendships with hearing peers. If they don't possess these skills at a young age and the problem is not addressed by appropriate input at an early stage, they will simply not catch up, especially those who have additional difficulties; and without good communication skills, deafness leads to isolation. Poor communication can lead deaf children to be left out of games at a young age and to be excluded from social chit-chat as they get older. In a mainstream setting there may only be one deaf child in the school and unless s/he can fully integrate s/he is likely to feel isolated and may even be a target for bullying just because s/he is different. In the short term this may lead to poor self-esteem and even behaviour difficulties and to mental health issues in later life.

The standard and choices of educational provision for deaf children need to be improved. Whilst it is clear that the Government's policy for inclusion works well for some children, it certainly does not work for all of them and it is important to ensure

that there is a choice of high quality provision in all areas. Mainstream education with support, which is sometimes inadequate, is merely a cheap option for the local authority and one cannot help wondering how much this is a factor in what they offer to parents as an appropriate provision for their child. It is no good having a child in mainstream education if that child's needs are not being fully met. This merely represents a short-term saving for the Local Authority with long-term adverse consequences for the child.

The role of a Teacher of the Deaf, whether in a special school or as a support in mainstream, remains vital for deaf children. More needs to be done to encourage teachers to enter this specialised field, perhaps by changing the structure of the existing lengthy training. There will always be a need for special schools but the number of these has been reduced to a dangerously low level. It is time for a re-think. More, not less special schools are required, spread appropriately across the country and research must be carried out to look at ways in which these schools can work effectively with mainstream schools to provide pupils with the best of both worlds. (A role model for this is already in existence in Hertfordshire.)

There is a real danger that the current generation of deaf children will be let down by a lack of investment in their education. In the right setting they will achieve but, without enough support and specialist teaching, many of them don't stand a chance.

The 'system' must be made to work for, rather than against deaf children.

Even with the tremendous benefits that technology can provide, life will be hard enough for deaf children as they become young adults. If they are to become independent, well adjusted members of society able to take their place and compete in the hearing world they need an individually tailored educational programme to ensure that they reach their potential.

The danger of a blanket inclusion policy is that many deaf children will simply not be able to meet their potential because the system has let them down by looking at cost rather than individual needs.

'One size fits all' simply isn't good enough.

There are differing degrees of deafness, from profound to hard of hearing. When addressing the needs of deaf children, we recognise it is essential to distinguish between pre-lingual and post-lingual deafness. The age at which deafness becomes serious enough to interfere with a child's language development has implications for personal & educational development & influences their ability to relate to & communicate with the hearing world. The essential problem of deafness is not the lack of hearing, but the severe isolation that can result from it. While most deaf children possess normal intelligence, their average reading age remains consistently & substantially below that of their hearing peers. The programme will seek to address this by:

increasing deaf children's information opportunities, motivation & capacity to communicate (both face-to-face and through technology)

enhancing their interpersonal skills
reducing their isolation by utilising technology to promote inclusion & improve literacy & communication skills
motivating them through the support of positive deaf role models
Positive differences we hope to achieve:

Direct involvement & inclusion of deaf children, where their ideas are being implemented incorporated in the project
Children to have direct contact with active adult role models to aspire to
Reduce the isolation experienced by deaf children
Improve literacy through direct participation and communication activities
Increase awareness of the range & effectiveness of different communication methods & benefits of technology
Widen their experience of different technologies & broaden their horizons
Increased understanding & knowledge of what the Internet can offer

Deaf students who are mainstreamed miss out on the feeling of belonging that individuals from the Deaf culture associate with their residential schools and their experience is very different from those who attend residential school. Mainstreamed students often are singled out in many respects. Although they have access to interpreters, notetakers and other special assistive devices, they still may be loners, especially in a mainstream environment where there are few other students with hearing losses (Gilliam and Easterbrooks, 1997).

April 15, 2005

Parents of deaf children make tough decisions

From: Daily Texan - Austin, TX, USA - Apr 15, 2005

Many attend schools that are 'mainstreamed,' may feel secluded

By Kristin Butler

The students' hands make rapid motions - their animated faces revealing their tone. They pound on the desk to get the teacher's attention. Students at the Texas School for the Deaf communicate visually. Sometimes this involves facial expressions and signals, but mostly the students rely on American Sign Language.

Parents of deaf children face a challenging decision: whether to send their child to public school with mostly hearing students, or to enroll them in a specialized school for the deaf.

The majority of deaf children are "mainstreamed," but Gene Mirus, a deaf anthropology graduate student at UT, thinks children tend to feel secluded in a primarily hearing environment.

"In theory, and in the eyes of uninformed hearing parents and professionals, mainstreaming seems like the best option," Mirus said. "In reality, most deaf children experience severe isolation among their hearing, non-signing peers." Since this isolation can stunt their language and psychosocial development, Mirus said, it is

becoming more popular for parents to send their children to the Texas School for the Deaf.

Diane Poeppelmeyer, coordinator of the education resource center on deafness at Texas School for the Deaf, agrees that students should at least be in contact with a deaf community.

"I think being a part of the deaf community is beneficial," Poeppelmeyer said. "They don't have to live here, but they certainly need exposure to it."

Uninhibited

Some children at the Texas School for the Deaf opt to be mainstreamed for part of the day. Third-grader Amelia Hamilton attends the school as well as a mainstream school with hearing kids her age. The communication barrier at public school doesn't trouble Hamilton that much.

"I feel, 'Oh well.' If I really want to know what they're saying, I can write it down or ask the interpreter," she said. Hamilton said she prefers to use American Sign Language when possible, because she can communicate more effectively.

At mainstream schools, communication for deaf students requires interpreting, writing or lip-reading and pronunciation skills. Hamilton introduces herself with her unique individual sign, rotating her index finger on the side of her cheek as she brightly smiles. "My mom gave me this sign because of my dimple," she signs to her interpreter.

Hamilton is deaf and comes from generations of deaf families. Despite her background, Hamilton does not segregate herself from the hearing world.

"They like me," she said. "I like the other kids in public school as well."

Hamilton's outgoing personality is uninhibited by her deafness or inability to talk like many of her fellow students. She finds other modes of communication, and her peers include her in things like they do every other hearing student. They even give her special privileges. "People always say, 'Come on, Amelia, you can be first in line,'" she said. "I guess it's because I'm deaf."

At the Texas School for the Deaf, cutting-edge technology, such as the active boards that allow students to solve math problems using an electronic pointer on a large screen, are utilized to enhance the learning process. These devices and other visual software at the school make learning easier and more fun for Hamilton, she said.

"Kids who are deaf really need a lot of visuals, where they can focus on what the teacher is saying, instead of looking back and forth from their book," said Donna Altuna, an education lecturer at UT and local campus reading coach for kindergarten through third-grade at the Texas School for the Deaf.

In place of music, students learn drama, and they are also taught something distinctive from the curriculum at most public schools - deaf culture.

"They learn deaf history because it is their culture; it is their pride," Altuna said.

During a deaf culture class April 7, Hamilton stood in front of a class of eight students to read and interpret, using American Sign Language, and an article that flashed on the wall from a projector. The article discussed the "Deaf President Now" protest at Gallaudet University in Washington, D.C., in 1988 that resulted in the selection of Dr. I. King Jordan as the university's first deaf president.

Melissa Flores, a 24-year-old teacher at TSD, received her bachelor's degree in social work from Gallaudet University. She was only eight years old when the protest happened but still finds it very significant. Growing up, Flores first attended mainstream schools and later switched to a specialized school for the deaf. Deaf people need experience with both deaf and hearing communities, "because they have to be able to function in both," Flores said.

Living in two worlds

Because Flores is from a hearing family, she said she sees the importance of assimilating in to both worlds. Yet, she finds it hard to explain which community she primarily relates to best. She likes communicating with her deaf peers, but feels the education at all deaf- and hearing-impaired schools is slower than her learning pace. Many deaf students struggle with reading and are naturally slower at developing communication skills, since they are not able to sound out words, Altuna said.

"For education purposes, I prefer to be in a mainstream environment, because it's more intellectually stimulating," Flores said.

To decrease the separation between deaf and hearing, the Texas School for the Deaf takes its students on field trips. Senior speech pathology major Katherine Lowry interns at the school and said that on her seven-week rotation with the middle school's special-needs department, they went on field trips to routine places such as grocery stores and the mall. Lowry and the teachers tested the children's communication skills with hearing people by having them ask employees for help without assistance from a translator. Lowry said they would warn the information desk or employees that the children were deaf and would be asking questions. Then, they'd cut the children loose.

"We'd say, 'We're going to leave; you're going to have to ask for help,'" Lowry said. "They would have a notebook with pictures, and they'd have to go to the information desk and ask for help - what to do if they're lost, where to find something at the grocery store."

Lowry is one of 13-junior level interns from UT practicing American Sign Language with the students and assisting them with concepts they are learning in class. The interns spend time at three different locations: middle school, career technology education and special needs.

Support for the deaf community

UT plays an active role in supporting the deaf community in Austin. The UT organization Students Advocating Deaf Awareness attends Texas School for the Deaf events such as plays. The group is hosting their biggest event, a Texas School for the Deaf Sports Day, on April 28. Members will lead this field day event along with UT athletes and any other students interested in helping.

There are no active deaf members in the group this year, although there have been a few in previous years. The club bonds through various social events such as silent dinners. "We go to a restaurant and try to only use ASL," SADA President Heather Keiler-Green said.

The silent dinners tend to attract attention from people nearby. "People see us using sign language and ask us questions," Keiler-Green said. "A lot of people have never been around a deaf person."

UT accommodates its deaf students in a variety of ways. The University provides ASL interpreters if desired, but many other options exist. Other forms of assistance include note-takers, a program in which the student can arrange for a classmate to take notes on carbon copy paper or through computer-assisted, real-time transcription [CART], in which someone acts similar to a court reporter.

"Sometimes the CART system is hooked up to a remote site, so the court reporter is not even present in the classroom, and through the computer system, it presents real-time captioning, only slightly delayed, on the student's screen," said Mark Bernstein, associate dean and coordinator for the deaf education undergraduate major.

The city of Austin also works closely with the deaf community by having a sign language interpreter at all city council meetings. "If a deaf person wants to get up in front and testify," Bernstein said, "a sign language interpreter will translate if necessary."

Understanding deafness

Bernstein teaches a course on deaf studies education and another upper-division communication studies course, which examines the complex aspects of deaf culture. His course addresses how some people self-identify as deaf, while others choose not to use ASL, as well as topics like psycho social and emotional-social development of deaf persons.

"There are lots of different ways to 'be deaf,'" Bernstein said. "There's no single description of what it means."

Lowry, through her internship at the Texas School for the Deaf, has realized there are many misconceptions of deaf people, but that they are basically just like any hearing person with a communication barrier to overcome. Their deafness doesn't prevent them from going to the movie theater, or swaying to music. Just because they can't hear the tune, doesn't mean they can't feel the rhythm.

"We had a Valentine's Day dance in the cafeteria for the middle school students, and they had the treble all the way down and the bass all the way up," Lowry said. "They were dancing and having a great time."

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The isolation of deaf children in schools

By Professor Terezinha Nunes
Department of Psychology

The isolation of deaf children in schools Deaf children are likely to feel isolated when they are placed in mainstream schools, though they are not disliked or rejected. So says a team of Psychology investigators from Oxford Brookes and Oxford universities, investigating deaf children's social relationships in mainstream schools. This implies that the current integration policy should be assessed, considering its cognitive and social consequences for pupils.

The team investigated the social adaptation of nine deaf pupils in two mainstream schools with measures used to identify pupils at risk from social problems - sociometric status and peer rating. Sociometric status is defined by analysing positive and negative nominations obtained from peers. This defines pupils as popular, average, neglected or rejected, and allows for identifying friendships. Peer ratings are obtained by averaging peers' judgements of how much they enjoy playing with each peer. The team found that deaf pupils were not more likely to be rejected, but they were more likely to be neglected by their peers. They were also less likely to have friends in the classroom. The average peer ratings received by deaf pupils were not significantly different from those of hearing pupils.

The team consisted of Terezinha Nunes and, Ursula Pretzlik of the Department of Psychology, Oxford Brookes University, and Jenny Olsson of the Department of Psychology, Oxford University. Their work is written up in Nunes, T., Pretzlik, U., & Olsson, J. (2001) 'Deaf children's social relationships in mainstream schools' *Deafness and Education International*, 3, 123-136.

Cognition in the Classroom:
The Academic and Social Implications
An Interview with Dr. Brenda Schick
by Leanne Seaver

Social isolation is one of the biggest fears families have for their children who are deaf or hard of hearing. Given the low incidence of deafness or hearing loss, many d/hh kids find themselves alone or among a small minority of students in a public school setting. What is the impact of a hearing loss on the child in that situation? What should parents and professionals alike be attending to when developing the child's IEP to make sure that social learning and social inclusion are addressed? Dr.

Brenda Schick, an associate professor at the University of Colorado, in the department of Speech, Language, & Hearing Sciences, has studied this topic extensively and is preparing to publish a paper on "Cognition in the Classroom." She provided Hands & Voices with this interview on her research and insight on essential academic and social considerations for students who are deaf or hard of hearing.

Seaver: What was the motivation behind your research into this topic?

Schick: What I was interested in doing was looking into the classroom to discover what kind of cognitive challenges there are in that environment for a student who is deaf or hard of hearing. Just reading the literature on what hearing kids have to do in real classrooms, and what challenges there are for them, and then looking at that from a deaf perspective-through an interpreter-and how that might be difficult for the kids to access some of the real cognitive aspects of the classroom.

I'm not just looking at the skills of the interpreter, but where cognition breaks down for the student. Consider the kinds of things the interpreter might have trouble with-like knowing the teacher's underlying intention, or having trouble interpreting all of the discourse in the classroom-if the child is missing these things, they're missing a whole lot more than content knowledge. When the child is missing the teacher's intention, they're missing a whole lot of metacognitive information. I'm interested in knowing the impact of that.

Seaver: Share your definitions of 'cognitive' and 'metacognitive'.

Schick: Cognitive means the various ways of knowing, perceiving, remembering, imagining, judging, and reasoning. Cognition is the mental process through which all those things happen. It's about how we come to think about and understand our world and who we are in it. Through cognition, we develop our thought processes and theories; we store and retrieve everyday knowledge; we analyze and problem solve; and as we learn, we organize and reorganize our cognitive system. Language, vocabulary, and concepts are processed into organized systems.

Metacognitive refers to understanding the bigger picture

Seaver: If you've got the content, what are you missing?

Schick: In one of the cases we studied, the teacher was discussing civil rights issues and talking about the lynching of blacks in the south. One of the students asks, (imitated with strong inflection) 'did they really do that?' and the teacher said, (sounding incredulous) 'yes, that did happen.' Quite a few interpreters-when they'd get to that passage-actually ignored the question from the kid in class, and also they ignored the emotion of all the discourse-all of the intention. So what comes out is, Question: "they did that?" Answer: "Yes, they did that," -without the speaker's motivation and emotional response to the subject. That imparts a very different message to the students. In the one case, the hearing kids get that these events were outrageous, whereas the deaf kid gets a matter-of-fact acknowledgment. The deaf child is missing the teacher's attitude about it because they're watching the interpreter who's not conveying that aspect of the lesson. So, blacks were killed, but the deaf kid's not getting "atrocious," he's receiving the information as a basic fact. But that's the

kind of stuff that's so essential to cognitive development.-the attitude, the emotion-the teacher putting it into some kind of context for the student. It helps the child develop a metacognitive understanding of how others think.

Seaver: So facts alone don't tell the whole story?

Schick: It's actually so interesting. I was reviewing some of our videotaped cases, and noted one where the teacher was doing a math lesson on rounding. One of the students raises her hand and says, "My mom taught me a new rule about subtraction." The teacher responds, "ok, thank you, Susie, that's really interesting, but we're rounding numbers now and we'll come to that later." It was the lovely way the teacher said it (using prosody or intonation) that basically said I acknowledge your comment, thanks, but let's get back on task. The interpreted message only conveyed the math lesson, and what got lost was the social message-the exaggerated patience in the teacher's voice. Those are two separate messages, and the social message was the most significant in that exchange.

Seaver: I'm thinking of times when the intonation and inflection of the speaker may make the meaning of a statement very different than the words used literally.

Schick: Exactly. Let's say the students are messing around and so the teacher says, "it's getting really close to recess," with a hint of warning in her voice. That statement means, "You'd better hurry up and finish your tasks before the end of class." Subtle, but clear. The deaf kid who doesn't get that is out of step with the rest of the students. I actually read a study where the teacher used the word "OK" with nine different meanings in the same class. Think about that from a deaf perspective.

Seaver: So these subtle cues can get lost, and that can look like a kid who isn't paying attention, or isn't really with it.

Schick: Very often, yes.

Seaver: When this recurs time and again for a kid with hearing loss, parents often are prompted to have their child tested for learning disabilities. But we should always start with the question, has the communication been effective for the student? Start with looking at what the child sees every day and ask if this information is being conveyed effectively.

What other impacts did you find?

Schick: The impact of having peers is critical. The research on hearing kids really indicates that having true, authentic friends, and having true, authentic interaction in classrooms, really helps their learning experience. There's some good data that shows that when kids get to interact about the material, they learn it better-now that's not interacting with the teacher-that's interacting with each other about the material. And there's also some good data that shows that when kids get to work with their friends on projects, they do better on the project. The quality of their work is more complex; it's more thorough and interesting than when they work with a non-friend. They're more likely to have real discussions.... disagreements. But with a non-friend they're more likely to be polite and just try to get the stuff done.

So peers are a great thing that provides kids with something they don't get from adults. With peers, children can argue, negotiate, and figure it all out. Some researchers have speculated that these life skills come more from peer interactions than through interactions with adults. And those language skills are absolutely essential.

Seaver: It makes total sense. Adults are not real big on arguing and negotiation with children. When I was growing up, you were "talking back" if you tried negotiating with an adult, and that was strictly not tolerated.

Schick: Right, but it's a communication skill that's essential, and kids develop this aspect of their ability through these interactions with each other.

Here's one example: a group of kindergartners were debating a topic until one child said, "well, my mom said this." And that was it.... end of discussion. To them, a mom was the ultimate authority. But if you try that when you're a 12 year old, you're going to look like a nerd. So you have to learn what kinds of evidence are legitimate...what debate tactics are acceptable, credible, and productive. That's a whole other aspect of what goes on in the classroom-kids being able to discuss with and negotiate with one another and build their information base and communication skills from those experiences. And it's another concern of mine because research shows that often deaf kids are not true members of those classrooms, and they're missing out on these experiences. (Ramsey 1997)

Seaver: As parents, how can we know if our kids are genuinely part of the class?

Schick: Ask the tough questions. Do they have real friends? Are they having real, interactive conversations? Do they know how to use an interpreter? What's the quality of the direct communication? How are they connected to all of the language and communication that is the real life of the classroom-all of the time?

Seaver: What are the peer considerations for a younger child?

Schick: In early elementary school, kids are making friends based on who's friendly. But about age six or seven, kids start analyzing their friendships and being more selective. The emotional connection goes deeper. It goes past physical play (like playing kickball) and into a reflection of the child himself. It's not just having peers, but the effect that having peers have on me and my own situation. "I like it when so-and-so is nice, I want to be nice, too. I don't like that bully, I don't want to be like that." The research shows that friend relationships can impact developing cognition...the understanding of who I am as a developing individual.

And what else we know about the importance of peers is that those interactions provide the opportunity for kids to process complex psychological events. It's not enough just to be in the presence of same-aged children-there must be meaningful interaction. Visual observation of peers is not enough to foster the development of verbal reasoning, or to open us up to divergent ways of thinking. We get such valuable experience from the earliest stages...the sociolinguistics of 'kid culture', the

impact of our message on the listener...how to monitor, repair and revise our message accordingly. All terrific communication skills.

Seaver: What's the impact of missing out on peer interaction?

Schick: It is possible that our kids with a hearing loss may be missing out of some experiences that are essential to social cognition.our understanding of how to interact in complex and meaningful ways with peers and colleagues. They may miss conversations that help develop metacognition and problem-solving skills. They may not have authentic interactions that are the foundation to learning, not just social development. This is not to mention what social isolation and loneliness does to a child's social-emotional development.

Seaver: How do we address these issues in school?

Schick: I think it has to be part of the IEP. That child's social life in the classroom is as relevant to their learning and a healthy social/emotional adulthood as learning about biology. This has to be a priority. We have to recognize that friendships and meaningful interaction with peers have developmental significance. The quality of those relationships affects social cognition and learning.

A major philosophy of education is that social interaction is the medium of learning. You simply don't learn without social interaction. There are lots of learning theories that maintain that every bit of learning is within a social context. Many educational philosophies are based on the theories of Vygotsky, a famous Russian philosopher. He believed that cognitive skills and patterns of thinking are not primarily determined by innate factors, but are the products of the activities practiced in social interaction, grounded in a culture. Many educators believe that learning can be facilitated in peer discussions. Often teaching practices reflect this.

It seems reasonable that a child's IEP should reflect the goals that schools have for all children regarding social cognition and learning the language of discussion and debate.

Seaver: Still, most of the time, IEP conversations are focused mainly on academic goals-especially in this era of high stakes testing. It's hard to imagine having the time and knowledge as a team to construct an IEP that could create social success. Most of the time we just "contrive" the presence of social goals, but how can an IEP goal create real friendships? Where do we even begin to make this happen?

Schick: Well you can start by asking your school what its philosophy of education is. What do you think the hearing kids are doing in those classrooms? Elementary schools build in social interaction because they know it's so important for the child's development. This philosophy must be built into the whole educational dynamic in a meaningful way for a deaf kid.

So the social goals have to be a part of the classroom experience. Is there evidence that my child is an authentic participant in the cognitive and social life of the classroom? Can my child participate in discussions, sharing and understanding the opinions and beliefs of others as well as their own. Can he express his opinions? It

may sound simplistic, but I think that the IEP team should talk about whether the child has real interactions. I think lots of people can recognize when a child is not a true participant.

The research is there to support why social interaction is important to a child's overall development. It's pervasive across all educational philosophies. I think we can make a good case for these goals being in a child's IEP.

Seaver: It seems like the key is in the placement of the student in a school where there are highly qualified teachers, appropriate services, plus certified interpreters if needed, all in a setting that affords him or her the best opportunity to have genuine friends and meaningful interaction with lots of peers. That's a utopian environment. If you're not there, do you think a change in school placement based solely on goals for socialization is justified?

Schick: I do...I honestly do. I don't know what it must feel like to some of these kids- and I know this isn't true for every deaf or hard of hearing kid-but some of these kids are completely disconnected to life in the classroom, they sit alone at lunch, and they're out there standing by themselves at recess. I don't know what kind of kid can handle that social isolation. I listen to deaf adults a lot, and I watch my deaf college students, and it's clearly hard for them. We need more research on the effects of social isolation on deaf and hard of hearing students.

For kids who have no opportunity for better school placement, then we'd better be using summer camps and every possible opportunity to connect these kids to other deaf or hard of hearing kids and adult role models. Schools need to share this kind of information with families, and families need to explore ways to connect their child to peers.

Seaver: The sad irony is that I think the system often works against this. "Least restrictive environment" has been applied to classroom environments that may actually be the most restrictive and isolating for many deaf or hard of hearing students. But if the school is willing to admit that the child is socially isolated, then the district could be financially liable for sending the kid to a summer camp where there are lots of peers, or even placing the student out of district at their expense. And there's a tendency to think hard of hearing students aren't "deaf enough" to have problems like social isolation-as if we could understand what every kid's experience is going to be and what they're going to need based on their audiogram! There's not a lot of motivation to own up to a student's needs and problems, and the resulting solutions, if the school chooses to misinterpret them, dismiss them, or has no money to fix them. But that's always the nature of the beast, both socially and academically.

Schick: But it doesn't mean we drop our expectations. We need to raise awareness of social issues, and the connection between social learning and academic success. Every child is unique so we can't apply one formula that will work for all kids. Certainly, there are hearing kids who struggle socially, too, and deaf kids who may not be struggling, but we need to understand what part of that struggle is germane to the deaf experience for many deaf or hard of hearing kids. Schools need to acknowledge that the child's social life is really important-it's intrinsic to learning-not an external

process. We need to understand all of this better, and create systems that operate from this foundational understanding.

Numbers of deaf children and young people:

- Every year, 1 in 300 babies are born deaf in Australia.
- There are 16,090 deaf and hearing impaired children under 21 in Australia.
- There are 6000 deaf people in Victoria
- There are currently 150 sign language interpreters working in Victoria.

DEAF CHILDREN AUSTRALIA FACT SHEET

Our vision is “deafness is no barrier”.

For over 140 years, *Deaf Children Australia* - formerly Services for Deaf Children - has been providing information, advocacy, support services and educational resources to enrich the lives of deaf and hearing impaired children and young adults. *Deaf Children Australia* is dedicated to ensuring that deaf children have access to a quality education that provides the foundations for a successful life. As a not-for-profit organisation, their service is made possible with the support of volunteers, the community, businesses and government financial grants.

Deaf Children Australia provides families with unbiased and up-to-date information, advocacy, support services and educational resources relevant to the individual situation and each of the family's needs. The early detection of hearing loss and appropriate support programs will greatly increase the probability of normal language development. Connecting with other families who have experience with deafness helps reduce feelings of isolation and enables families to approach the future with far greater hope and confidence.

We assist families with deaf children with professional counselling, improved educational opportunities, support services, language classes and recreational programs.

Some deaf children can suffer chronic conversational isolation both within and outside the family. This can put them up to 4 times the risk of childhood mental and physical disorders, anxiety and depression than that of a child with full hearing.

Deaf children have the highest incidence of suicide amongst teenagers with disabilities.

Deaf children are 2-3 times the risk of being sexually abused than hearing children.

Our services are as follows: information, advocacy, education support services, audiology, speech pathology, physiotherapy, counselling, psychology, family and community support services, Auslan tuition, recreation services, deaf support register, accommodation service, interpreting services and employment service.

Facts on isolation

90% of deaf children grow up in hearing families with little or no experience of deafness.

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Deaf Children are at a greater risk of developing mental health needs than their hearing peers.

“Deafness itself is not a risk for mental health needs: it is the consequence of being deaf in a hearing-oriented society, where the ability to hear is considered a necessity.”

A deaf or hard of hearing person is two and a half times more likely to be unemployed than a hearing person.

Deafness in itself is not a learning difficulty. Learning difficulties arise when deaf children cannot access communication. An undiagnosed deaf child aged three will only know about 25 words, compared to 700 words for a hearing child of the same age.