



Otitis Media

and Aboriginal Children



A HANDBOOK FOR
TEACHERS AND
COMMUNITIES

Design Rationale

On the left is an ear represented in stencil form. The circles lead into the ear. Lines to the circles show that hearing loss can be partial, shown by dotted ends.

Wavy lines leading into the ear indicate the different influences on hearing. At the bottom is the family who keep the health of the community through their children.

In the middle are message sticks representing the importance of culturally relevant education which provides motivation for learning.

The concentric circles at the top represent the different mainstream institutions – Health, Housing, Education, Law, Department of Community Services, etc – that need to be involved in the wellbeing of all Aboriginal children.

Neil Thorne
Kamilaroi

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Introduction

For many Aboriginal children, otitis media is a chronic condition with long-term health and educational effects. The persistence of the disease and its long-term effects is due partly to a lack of awareness of the disease among parents, teachers and health workers, and partly to the lack of agreement about who is responsible for treating the disease and its effects.

This book seeks to help overcome these problems by explaining what otitis media is and by showing teachers and other school staff what role they can play in the shared responsibility for students who suffer from it. The book provides:

- a plain English explanation of the disease and its educational effects;
- a discussion of the shared responsibilities for treating the disease;
- strategies to assist teachers to identify students who suffer from otitis media;
- teaching strategies to ensure that students who suffer from the disease still succeed at school;
- a definition of the support network available to teachers, including the Aboriginal Education Assistant (AEA), the Aboriginal Education Resource Teacher (AERT) and the Itinerant Support Teacher Hearing Impairment (ISTH);
- advice for involving parents and community members in the children's education, ie techniques to be utilised in the home as well as in the classroom.

This book may be used in conjunction with the video *Can't Hear Can't Learn: Promoting an Understanding of Otitis Media in Aboriginal Children* produced by the NSW Department of School Education.



Some Facts About Otitis Media

- Otitis media (OM) is a common childhood disease — 75% of all children have had one episode of OM by the age of five and for some it may continue throughout school life.
- A child with otitis media may have fluctuating hearing loss. This means that hearing loss will vary, depending on the stage of the disease.
- Otitis media may cause rupturing of the eardrum. This is known as a perforated eardrum.
- Some children suffer so many infections that the perforation never heals. Others develop scarring on the eardrum from multiple infections. These children have permanent conductive hearing loss (CHL).
- Conductive hearing loss during early childhood may cause delays in oral language development.
- While otitis media occurs in all cultural groups, it is at least ten times more common among Aboriginal children than among non-Aboriginal children.
- As many as eight out of ten Aboriginal children could have a middle-ear infection and associated hearing loss at some time during the school year.
- Hearing loss can compound the disadvantage experienced by Aboriginal children for whom standard English is a second dialect, particularly in schools which do not take account of the implications of this.
- If children can't hear properly, they can't learn properly.



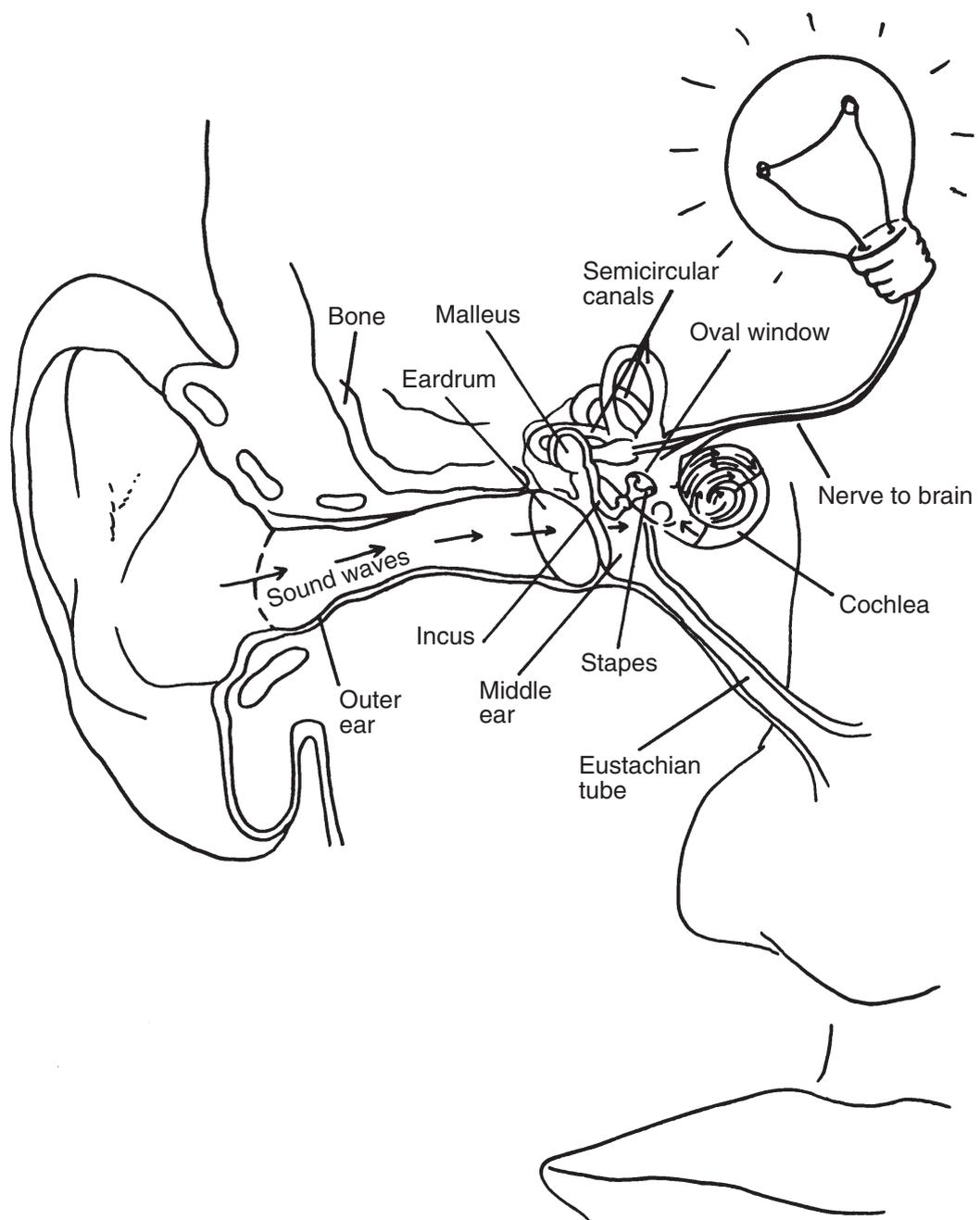
Section 1





The Hearing Process

The hearing process begins with sound waves entering the outer ear, travelling along the ear canal, hitting the eardrum and causing it to vibrate. The vibrating drum causes the three small bones (*malleus*, *incus* and *stapes*, known as the *ossicles*) in the middle ear to vibrate. The last bone, the stapes, hits the oval window creating waves in the fluid in the cochlea (inner ear). The waves move hair cells which in turn stimulate the auditory nerve. The auditory nerve carries the information to the brain.



What is Otitis Media?

'Otitis media' is the medical term for middle-ear disease. It comes from the Greek word *otitis* which means inflammation of the ear and the Latin word *media* which means middle. Thus, otitis media simply means inflammation or infection of the middle ear.

This disease is a common childhood ailment which may affect many children before the age of five years. Seventy-five per cent of all children will have at least one episode of OM by the age of five.

How is Otitis Media usually caused?

Otitis media can be caused by a cold, flu, allergy (asthma/hayfever), or chest infection. The inflammation from all of these illnesses causes the Eustachian tube (the tube that connects the ear to the back of the throat) to swell up. This stops the normal ventilation of the middle ear. The middle ear space then becomes full of a very sticky fluid which restricts movement of the ossicles. This reduces the conduction of sound waves through the middle ear to the inner ear and so reduces the messages to the brain. Thus, the child's hearing is reduced, and this is called a conductive hearing loss (CHL).

Otitis media is a general term that covers a wide range of middle-ear problems. The two most common forms are *otitis media with effusion (glue ear)* and *suppurative otitis media (perforated eardrum with pus)*.

Otitis media with effusion is fairly common in all young children. When looking in the ear with an auroscope, fluid can be seen through the eardrum. When this fluid becomes infected it turns into pus and is known as suppurative otitis media.

When OM comes on quickly it is known as acute OM. This is usually very painful and children will generally become irritable, have a temperature and rub their ears. Because Aboriginal children generally get the disease much earlier and for a longer duration than non-Aboriginal children, they do not appear to have the symptoms relating to an acute episode (ie pain and temperature), making it difficult to diagnose. The general symptoms that indicate a child has a problem are language deficiencies or pus running out of the ears.

These infections (acute otitis media) are often quickly resolved with antibiotics. Generally, however, Aboriginal children are not diagnosed with the acute episode, and antibiotic treatment does not resolve the disease quickly. These children may be treated with antibiotics for six months with no success. If the infection continues with a conductive hearing loss for over two to three months (chronic otitis media), surgical intervention is recommended. This involves suctioning the middle-ear space and inserting grommets (small ventilation tubes) into the eardrum to ventilate the middle ear and keep it dry. In rural and remote communities, the insertion of grommets is often difficult and not always appropriate.



When the fluid in the middle ear remains stagnant it may become infected. The pressure of the infected fluid makes the eardrum bulge outward and the child will probably experience pain. If the pressure continues, the drum will possibly perforate and pus or fluid will pour out of the ruptured eardrum into the ear canal (suppurative OM). Sometimes the eardrums are able to heal spontaneously once the infection is resolved.

However, recurrent colds and flu, or allergy, will almost certainly cause another otitis media condition and the episode will continue. Repeated cycles of OM are damaging to the eardrum as they cause scars on the drum that reduce its conductive abilities.

Some children have perforations that are very large and will not heal without surgery (tympanoplasty). Surgery is not recommended until the child is fifteen years of age as the graft to the eardrum may be torn during the growth process prior to this age.

Children with perforations that continue to pour out infected pus or fluid are at risk of further complications, ie the infected fluid may erode the bones in the middle ear and damage them permanently, causing a permanent hearing loss. There is also a danger that infection may travel to the brain and cause meningitis. Meningitis can result in death, or possibly a sensorineural hearing loss. Therefore, chronic otitis media is a serious health condition that should not be ignored.

In the case of perforated eardrums, although air is able to enter the ear via the hole in the drum, the pus will not drain because the Eustachian tube is inflamed, preventing the drum and bones from conducting the sound waves.

The conductive hearing loss that results from this disease can fluctuate with bouts of infection which prevents accurate diagnosis of the child's hearing problem, as on some days the child can hear well and have a normal hearing test result.

Types of Hearing Loss and their Causes

1. Conductive

A conductive hearing loss (CHL) occurs when the sound waves that enter the ear are not conducted by the outer ear or middle ear to the inner ear and brain. This type of loss is generally remediable and will have either an acute short phase or a chronic phase (go on for a long time). The level of hearing loss can be mild to moderate, and may fluctuate. The hearing loss can be in one or both ears.

A conductive hearing loss can result from some of the following:

- outer ear blocked by wax or foreign bodies;
- deformities of the ear canal;

- skin diseases causing either inflammation or blocking of the ear canal;
- fluid in the middle ear caused by OM;
- pus in the middle ear related to OM;
- recurrent infections causing scarring of the eardrum related to OM;
- perforated eardrum related to OM;
- bones in middle ear damaged by OM or out of place as a result of injury;
- otosclerosis (calcification of the bones caused through recurrent infections); and
- cholesteotoma (tumour in the middle ear) that can grow into the inner ear, and possibly the brain, causing permanent hearing loss.

Generally, conductive losses are not permanent. They may resolve naturally or can be treated by medical or surgical intervention. However, in the case of recurring infections that result in damage of the eardrum and bones, permanent conductive hearing loss can occur.

2. Sensorineural

This hearing loss is a result of damage to the inner ear: the cochlea (sensory part), or auditory nerve (neural part). It is generally a permanent loss. The level of hearing loss can range from mild to profound, and the loss can present in one or both ears.

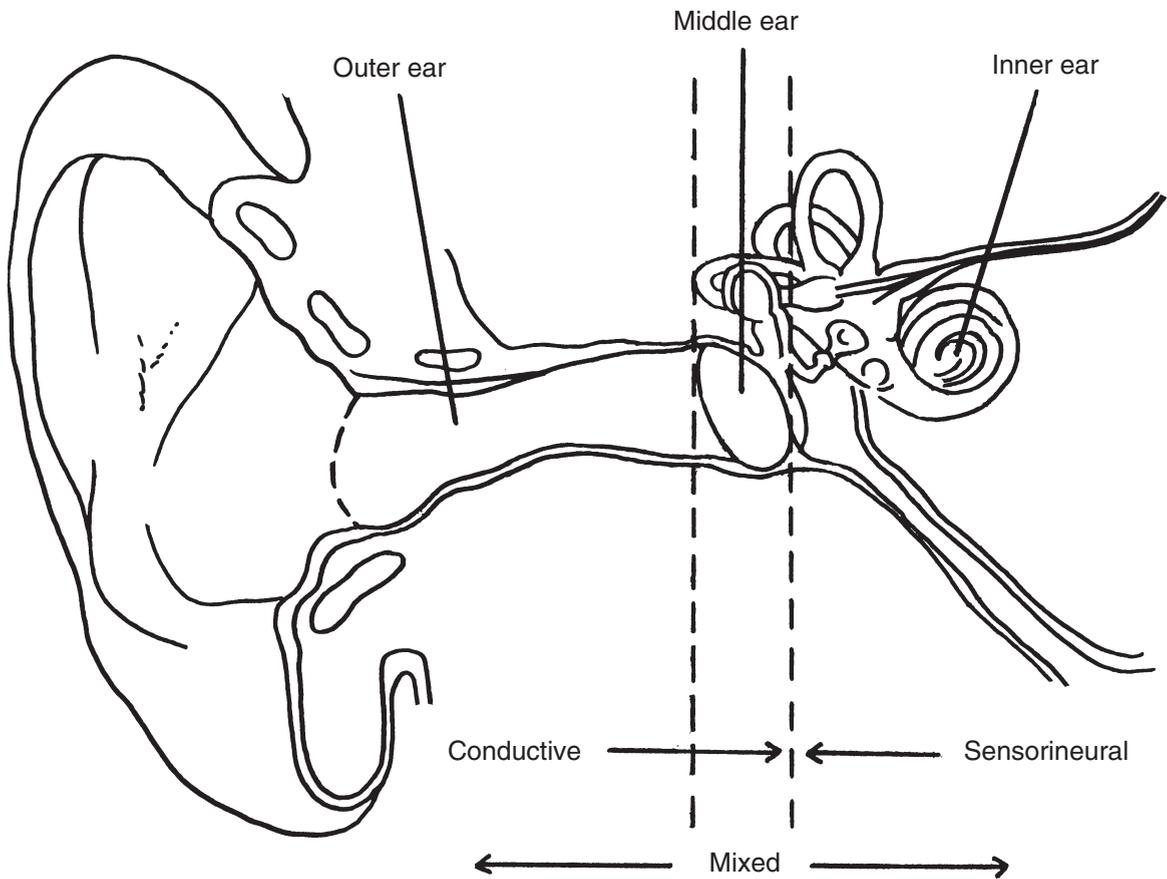
A sensorineural loss can result from some of the following:

- heredity
- drugs
- chronic noise damage
- old age
- problems during pregnancy or birth
- childhood diseases
- meningitis
- inner ear disease
- head injuries
- infectious diseases, ie Aids and syphilis.



3. Mixed

This is a hearing loss that is a combination of conductive and sensorineural.



Educational Implications of Otitis Media

Simply put, if children cannot hear well they are going to have difficulties in the classroom environment, as most learning in the classroom situation is based largely on being able to listen effectively.

Children must be able to understand the spoken word, which is standard English, in order to learn how to read and write. If children have not been able to develop listening skills, they will have difficulties in auditory processing and understanding where the information is coming from.

Specific problems are:

- reduced audition (the power of hearing)
- impaired auditory acuity (sharpness of hearing)

- selective attention
- reduced recall
- reduced comprehension
- poor phoneme discrimination
- delayed speech development
- limited and inappropriate use of information
- delayed acquisition of language concepts
- delayed development of vocabulary
- inability to hear low intensity sounds, such as **ed, s, v, th**
- limited understanding of conversational rules
- limited range of communicative functions
- delayed development of sound/syllable/sound segmentation
- delayed development of phonological blending
- less awareness of listeners' needs
- less awareness of self-monitoring.

(Loades, 1990)

It is important to mention that children who have otitis media spend a great deal of time concentrating hard to listen or lip read. This type of concentration is very tiring and these children will need time out from listening or they may turn off altogether.



Effects of Hearing Loss on a Child at School

Children who have otitis media will probably suffer with a conductive hearing loss. This loss can fluctuate from one day to the next, from hearing well to not hearing at all, and may be present in only one ear or both. For most children the hearing loss occurs for only a short time. Fortunately, the educational impact is only minimal, and easily remedied. Children who have losses that occur regularly will have affected language development, listening skills, thinking skills, and general communication and learning difficulties.

For those children who have suffered from chronic otitis media in their first year of life, there will be an interruption in the way that they develop the basic skills of localising sounds, discriminating important sounds from others, and how to use those sounds to communicate. They will respond by using incorrect sounds, or miss out on sounds altogether because they have not heard them. Thus, these children will be dealing with a language delay that will impact on normal language development.

In a recent study in Dunedin, New Zealand, Dr Phil Silva observed 1000 children born in 1972 over a period of 18 years, looking at all aspects of health development. He compared children with otitis media to those without otitis media and found that there was a degree of difference in language development, reading, speech, articulation and behaviour. Silva suggests that these children may carry these educational difficulties throughout their lives unless they received educational intervention.

The impact of hearing loss goes further than learning delays in the classroom. A conductive hearing loss will most certainly affect the child's emotional world, because he/she will miss vital cues that we all take for granted as good listeners in understanding the meaning of a conversation.

'For the hearing impaired ... meaning is often gained only from the straight rendition of the words, whilst the verbal subtleties are either not available, or are improperly or incorrectly available. That is, the child may not be able to pick up any voice cues or picks up only limited or isolated voice cues which may lead to distortion of the total message. This must have a marked effect on the child's development of world view, biases, prejudice, innuendo, taboos, social behaviours, values, beliefs, attitudes and so on. This inability to correctly monitor and interpret all of the verbal behaviours of people in their environment must lead to an internal and external isolation. This isolation may also become apparent in limited knowledge and understanding of day-to-day events within the home and school. This may in turn be shown through the behavioural outcomes of at least annoyance, anger, irritation, frustration and aggression; all of which can be seen as a fairly common and perhaps realistic outcome of a feeling of losing touch with and/or control of your personal world.' (Module Bank 89/002)

As teachers of children who suffer from an educationally significant hearing loss, it is your responsibility to provide as many meaningful situations as possible in the classroom situation. (See 'Strategies and Activities for Teachers', page 41.)

A child with a hearing loss has its external environment of sound turned down, and in some cases turned off. The effects of this lack of aural stimulation on children noted by classroom teachers (Armstrong, 1975) are:

- introversion
- quietness
- temperamental behaviour
- unresponsiveness to questions
- teasing by other children
- poor attendance
- speech difficulties.

Otitis Media and Aboriginal Children

1. Occurrence

As previously stated, the prevalence of otitis media in the Aboriginal population is at least ten times greater than that of non-Aboriginal populations.

'Aboriginal children's conductive hearing difficulties seem to be more prolonged and more severe than that of other child populations studied.' (Haenstabb, 1987)

'Their fluctuating hearing loss is essentially a long-term, pre-lingual one, and its effects could be expressed in any aspect of auditory and communication development. Unfortunately, however, Aboriginal children's conductive hearing loss is rarely evaluated by an audiologist before they reach five years of age.' (Nienhuys & Burnip, 1988)

A survey of school-aged children carried out in 1975 in Bourke and Enngonia in rural NSW by Kamien produced the following statistics:

Hearing disorder	Aboriginal children	Non-Aboriginal children
Perforated eardrums	14%	0.3%
Hearing loss in one ear	35%	4.0%
Hearing loss in both ears	17%	1.0%

Surveys throughout Australia outline the alarming number of children who suffer from otitis media and its accompanying conductive hearing loss.

- In the Northern Territory, Australian Hearing Services observed that 25% to 50% of all Aboriginal children at school suffer an educationally significant hearing loss.



- In Queensland, a survey in 1988 showed that 30% to 80% of Aboriginal and Torres Strait Islander children suffer from otitis media and conductive hearing loss.
- In the Kimberleys in Western Australia, a survey in 1984 indicated that 81% of children screened had clinically abnormal ears.
- In 1989 a survey of children in Redfern, NSW showed that 81% had clinically abnormal ears, and 36% had an educationally significant hearing loss. (Proceedings, National Conference on Aboriginal Otitis Media, 1990)

Other studies have produced similar statistics.

'Studies indicate that many Australian Aboriginal children experience extended or frequent episodes of otitis media during the critical years for development of communication and auditory processing skills, and the condition often persists well after the child commences school.' (Boswell et al (in press); Quinn, 1988; Lowell, 1993)

Research on Bathurst Island has observed that a major proportion of Aboriginal children within their first month of life have had otitis media, and have gone on to have further episodes throughout their first twelve months, even though they have received prompt medical intervention.

'It seems that middle ear disease in Aboriginal and Torres Strait Islander children follows a different course compared to European children. It does not follow the acute pattern, rather it seems to develop slowly, often without associated symptoms. So it is much harder to detect. Changes in hearing levels happen slowly making the problem difficult to notice.' (Queensland Aboriginal Health Program Manual)

'It has been estimated that by 14 years of age an Aboriginal child is likely to have spent two years of its life with ear infections, compared to two months for non-Aboriginal children.' (Queensland Aboriginal Health Program Manual)

It is important to note that the disadvantages of this disease are not purely related to remote isolated areas. The prevalence of otitis media is similar in urban, rural and remote communities.

2. Effects

Unfortunately, only limited research has been conducted documenting the effects of otitis media and conductive hearing loss on Aboriginal children's language development. However, Lewis in 1976 suggested that otitis media is '*educationally a potentially dangerous disability deserving urgent and aggressive intervention*' (Lowell, 1993).

It is assumed that conductive hearing loss creates a communication blockage and further alienates the Aboriginal child by exaggerating the impact of cultural differences of the classroom.

Research referred to by Armstrong in 'An Exploration on the Effects of Conductive Hearing Loss on Linguistic Performance' shows that children with '*recent otitis media ... as we would expect ... have problems with auditory reception and consequently with auditory processing for verbal response*' (Price, 1981). It is considered that children with otitis media also have extra difficulties with articulation of words and connected speech, use of word endings, auditory discrimination, sound blending and auditory closure. Therefore, if a child has hearing loss these skills will be affected.

Armstrong's study observed that the children were able to catch up on the abovementioned skills as they grew older, but the process of learning these skills was affected. Price suggests that research with Aboriginal children has shown that those suffering from recurrent infections perform less well than their peers from the same community.

'The Aboriginal child has to cope with the burdens described above as well as with a second, and in some cases foreign, language in the alien cultural environment of the European-style school. English, unfortunately, can be a hard language to get along with if your hearing is impaired.'

'The Aboriginal child whose first language is not standard English will have difficulty in distinguishing the sounds of English which do not occur in his or her own language or those sound features which are not significant in that language (eg p/b t/d etc). That child will also lack the necessary knowledge of a linguistic and cultural environment to predict what is coming and to fill in the missing elements ...'

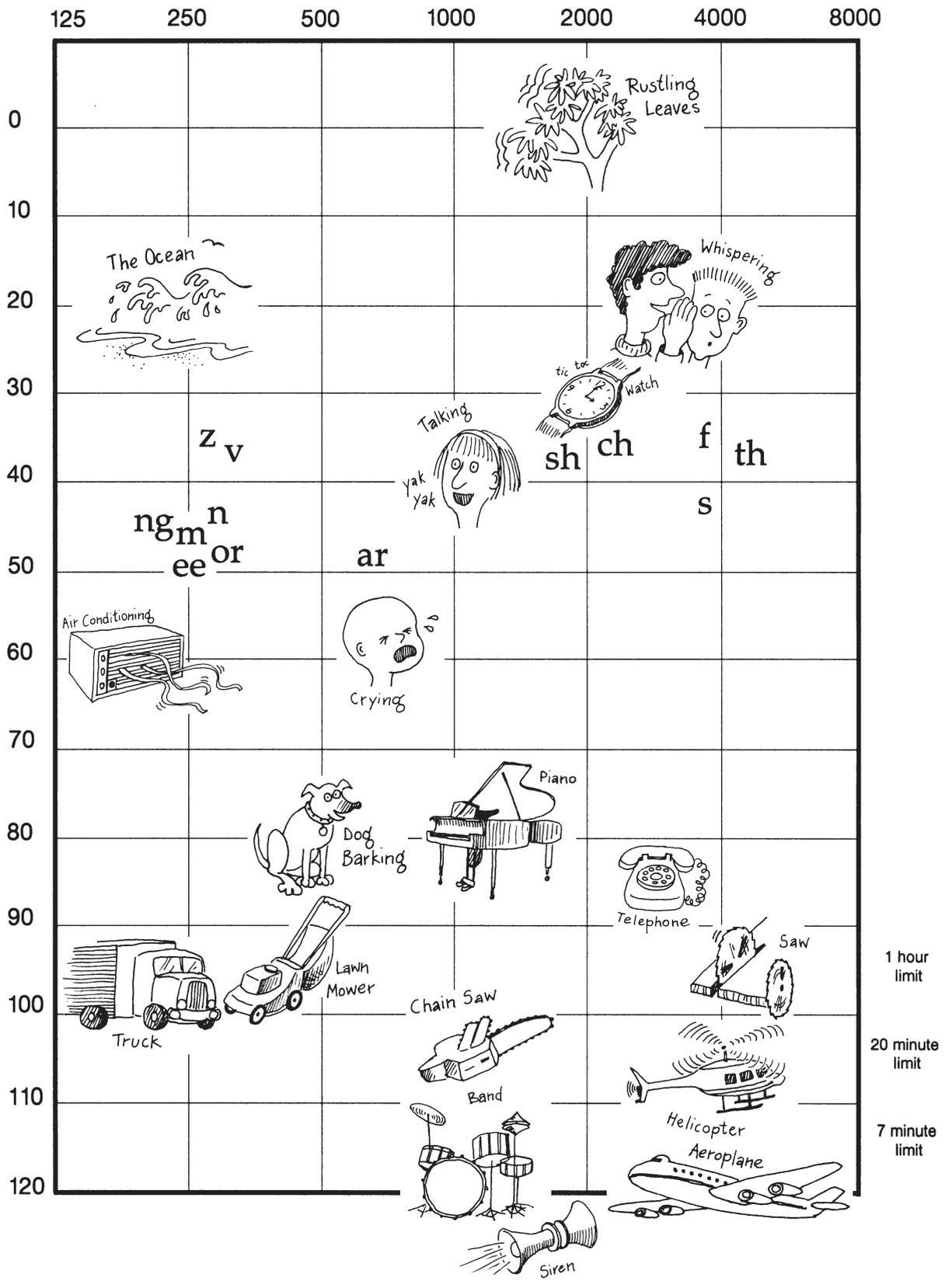
'These skills take up to three years to acquire under normal conditions and are a prerequisite to successful reading. As luck would have it these sounds which generally do not occur in Aboriginal languages, eg the fricatives and affricatives h, s, sh, th, f, v, etc, and those features which are not significant, eg voicing and aspiration, are the ones that the child with a hearing loss is most likely to miss even if English is the child's first language.' (Price, 1981)



FREQUENCY IN CYCLES PER SECOND

FREQUENCY SPECTRUM OF FAMILIAR SOUNDS

Hearing loss in dB

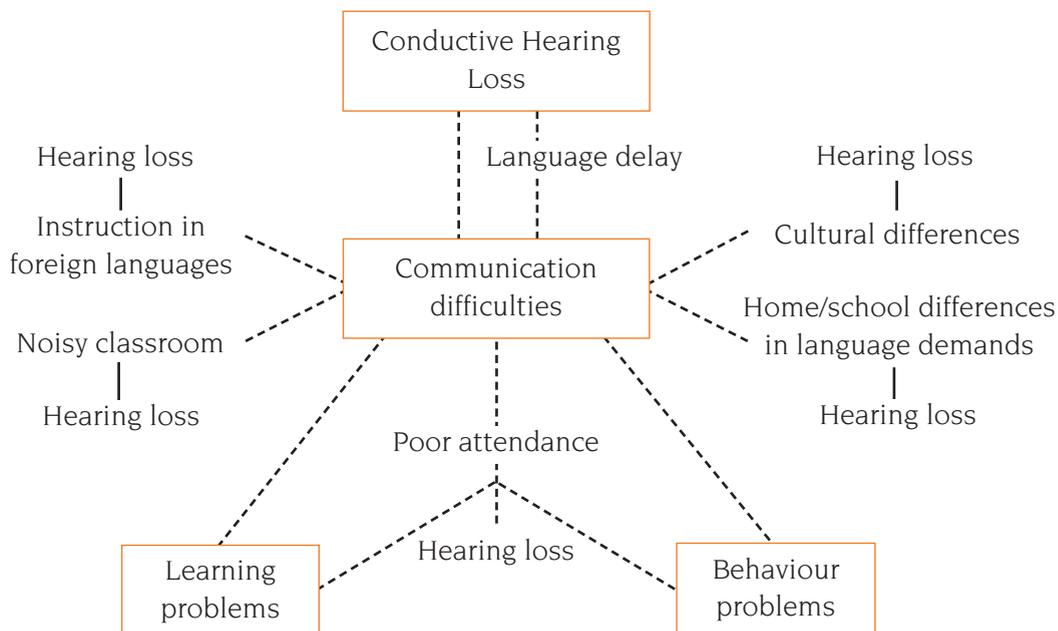


Conductive hearing loss in Aboriginal children ranges from mild to moderate and, as Price mentioned, this indicates that they will miss the low intensity sounds necessary to make sense of the spoken classroom language of standard English. Thus, the cultural alienation they sense has a physical cause that impedes their attempts to hear the standard English utilised in the school environment that is very different from their home first language.

The cultural alienation faced by these children is further exacerbated where Aboriginal English is not valued at school and where there is a need to assimilate behaviourally.

The Aboriginal child suffering from otitis media and conductive hearing loss is likely to be a poor attender, to have apparent behavioural problems and perform poorly at school. This sets up a situation of failure for the child who possibly has communication problems and learning difficulties. These children very quickly get fed up with school as positive reinforcement is not forthcoming, and they readily learn to accept not to succeed.

Anne Lowell's 'Model of the Effects of Otitis Media on the Aboriginal Child' clearly illustrates the issues that face these children.



Lowell, 1993, 'Aboriginal Issues: At Work in the Top End', *Australian Communication Quarterly*.



Section 2





Otitis Media – Whose Problem Is It?

As the classroom teacher spends considerable time with the children, it is likely that he or she will often be the first person to identify suspected hearing loss, and as a result, play a major role in the management of otitis media.

The educator's role in the management of otitis media need not only be confined to the classroom. By working with educational consultants, liaison officers and health workers, the teacher or AEA can be the agent of change in a community. Involvement and consultation with elders, grandmothers and so on in the community is essential to this process. We all have a responsibility to the community to share the knowledge we have about otitis media and its effects in the classroom.

The teacher or the AEA can assist health workers in educating the community by raising awareness of otitis media and its impact.

Everyone in the community owns the problem and needs to be given the skills to solve it.

Strategies to Identify Hearing Loss

Once a teacher assumes that over 50% of the class has some form of hearing loss there are some simple strategies that can be adopted to aid in the management of the problem. These range from simple classroom games to informal observations to designed checklists.

One simple method of identifying children with a possible hearing loss is speech reception testing. This involves determining if students can follow instructions when given in a quiet voice. A simple game called 'Blind Man's Simon Says' developed by Damien Howard (Howard, 1992) is an easy format for teachers to perform in classrooms. Following this, checklists can be performed to identify suspected hearing loss.

How to play 'Blind Man's Simon Says'

It is important when playing this game that teachers do not single children out or demand that they participate. Avoid the 'shame' (embarrassed) factor so that all participants benefit from playing this game.

Select four or five students at a time for this activity. Be sure to select a mix of students in each group, including some whom you believe to have good hearing. First, explain the rules – that you will (1) ask them to shut their eyes, (2) ask them to do some things, often in a very quiet voice, but they do not have to wait for you to say, 'Simon says'. Participating students stand at the front of the classroom, while

you stand at the back. As much as possible, groups should comprise students of a similar age, so try to avoid testing Year 1 and Year 6 students in the same group, for instance. Make sure that students stand a little apart from each other so that they do not pick up 'touch cues' from their neighbours.

Minimise background noise in the classroom during the game. Remind students of the importance of remaining silent while others are having their turn. Switch off air conditioners and fans, and move to a quieter room if necessary.

Step One

Start the game by saying, one at a time, all the instructions you are going to use, in a loud, clear voice. Ensure that all the students can perform the directions when they are given in a loud, clear voice.

Below is a list of instructions you can use.

Put your hand on your nose

Put your hand on your hair

Put your hand on your cheek

Put your hand in the air

Put your hand on your ear

Put your hand on your chin

Put your hand on your knee

Be sure to vary the order in which these directions are given when playing this game regularly, so that students cannot predict what they are going to be asked to do next.

Step Two

After all the students have demonstrated that they can follow these instructions when they are given in a loud voice, tell the students that you are now going to say them quietly.

Dropping your voice, but not whispering, give a direction. Use the students participating to check your sound level. You do this by lowering your voice level gradually till some students can follow the instructions but others have difficulty. If all the children have difficulty hearing you then you know you need to raise your voice level. The children in the group with normal hearing confirm for you that you can be heard. *This is why it is crucial that the groups are not made up only of students whose hearing is suspect.* If you think that the hearing of all the students in a particular group may be suspect, rearrange the group to include those who had no problems earlier and play the game again.



Step Three

When you have given an instruction a few times quietly, repeat it in a loud voice. Those requiring a louder level of voice to 'hear' are then obvious. This also ensures that even those who have difficulties can still experience success during the game.

Step Four

Continue to go through the different instructions until you can discern which students are having consistent difficulties. Some words, through sounding similar, are harder to distinguish – for example *air*, *ear* and *hair*; *cheek* and *chin*; *knee* and *nose*. Use these more frequently to help confirm which children are having difficulties.

What to Watch For

As well as watching for students (a) who have consistent difficulties following the directions you give in a quiet voice, and (b) who make sudden corrections when you say the directions in a loud voice, also watch for students who:

- (c) follow the instructions after a short delay,
- (d) turn to peek at what others are doing,
- (e) consistently turn their head around to favour one ear,
- (f) make ambiguous movements – for example, having their hands 'hover' around the sides of their head, or
- (g) are reluctant to participate or are disruptive during the game.

Take note of students who consistently respond in these ways. These are students whose hearing is suspect.

Students with a current hearing loss in either both ears or one ear display obvious difficulties during this activity. Even students without a current hearing loss, but who have had past hearing loss which has left them with some listening difficulties in class, may also demonstrate problems. However, be aware that some students with a hearing loss in one ear may not have any difficulty with the activity. If some students' behaviour or learning difficulties raise the possibility of hearing loss, but they do not seem to have difficulties with 'Blind Man's Simon Says', you should still refer them to have their hearing formally assessed.

This simple classroom game is usually popular and can be used regularly with the whole class. It is an activity that can be useful in suggesting students to refer for hearing tests. Also, importantly, it can assist teachers to identify which students in their class are having difficulties with verbal instructions. An elaboration on this activity is to carry it out in normal classroom conditions (ie with fans and air

conditioners going and some background noise). Recent research suggests that children who have a history of otitis media are left with difficulties in detecting and perceiving speech in noisy environments (Moore et al, 1991). Therefore, playing the game in normal classroom conditions may identify some children who do not have a current hearing loss but who do have 'listening problems', in that they have difficulties in detecting and attending to speech in the presence of background noise.

Otitis Media Screening Test

The Otitis Media Screening Test was developed as a simple-to-administer test which could be used by teachers of deaf students, Aboriginal health workers, Aboriginal teachers' aides and classroom teachers to monitor the hearing levels of urban Aboriginal children. The test is a screening device designed to identify students who might have a hearing problem, rather than a diagnostic test designed to describe hearing loss in precise terms. While the test was primarily designed for the urban Aboriginal population, it is hoped that it will be appropriate for certain rural Aboriginal populations as well.

Because of the fluctuating nature of otitis media, it is important that the hearing of at-risk children is monitored regularly so that teachers can plan appropriate educational intervention where it is necessary. Regular audiological testing is difficult to arrange. Firstly, frequent testing is time consuming and might not always be practical, given the limited available time of audiologists and audiometrists. Secondly, for a variety of reasons, children might not always attend appointments arranged at health centres or other paramedical or medical establishments.

The test is similar in format to that developed by Plant (1990), to screen hearing in the Aboriginal languages of Warlpiri and Tiwi. Using an audiometer to control presentation levels, a set of five words is presented through headphones to individual children, who are required to respond by pointing to the picture of each word as it is presented (the words used are Aboriginal English).

The five words used in the test are familiar CVC items with clear pictorial representations. If a least four words in the set are correctly identified, the presentation level is reduced, while if less than four words are correctly identified, the level is increased. This procedure is repeated until the softest level at which four of the five words are correctly identified is determined.

There is a strong positive correlation between the results of the Otitis Media Screening Test and those of pure tone audiometry. Therefore, by looking at the performance of a particular child on the screening test, it is possible to predict the presence of a hearing loss and hence the need for full audiological testing and appropriate classroom intervention (Johnson, 1993).



Diagnostic Checklists

If, after playing one of these types of games in the classroom or from informal observation of a student, you suspect some form of hearing loss, the following checklist can be performed to assist you in your diagnosis. Remember, a child with a conductive hearing loss may hear well one day and not the next. It may be necessary to observe and perform the checklist regularly over a six-week period.

It is important to note that once a hearing loss has resolved, the symptoms, behaviour and learning difficulties that go with that loss may not disappear overnight. These children will in fact require diligent and long-term language input by educational professionals in order to reach the level of language development of their peers in the classroom.

The checklists in this section are a very necessary indicator of the behaviour, symptoms and learning difficulties children may have due to a current or post-hearing loss. Do not ignore children's learning difficulties if there is not a current hearing loss. Acknowledge their symptoms and adopt an approach to assist the children in their learning.

Speech Checklist

Child's name: **Class teacher:**

Date of birth: **Class:**

Date:

AEA:

ISTH:

Parent interview:

.....

.....

Indicator	Yes/No	Comment
<p>Speech is difficult to understand – leaves out sounds; does not use sounds expected of age group; substitutes the sound for another, especially low intensity sounds, ie s, h, th.</p> <p>Is being teased about speech by other children.</p> <p>Talks loudly or yells.</p> <p>Range of words used seems limited or inappropriate for age, ie limited vocabulary.</p> <p>Has difficulty retelling a story or past event in an organised sequential manner.</p> <p>Does not follow instructions as well as others.</p> <p>Follows instructions only after watching other children or after several repetitions.</p> <p>Is having difficulties comprehending standard English and/or home language.</p> <p>Combines words and sentences in unusual ways – words in wrong order.</p> <p>Voice unusually croaky/hoarse, high/low or nasal.</p>		



Behaviour Checklist

Child's name: **Class teacher:**

Date of birth: **Class:**

Date:

AEA:

ISTH:

Parent interview:

.....

.....

Indicator	Yes/No	Comment
Does not respond to other people's speech, especially in noisy situations. Asks for repetitions ('what?'). Frowns or strains forward when spoken to. Watches speaker's face closely. Answers to questions are often inappropriate. Responds slowly to instructions, watches and follows other children's cues. Often has trouble localising where a sound comes from. Poor school attendance. Written work often fluctuates in its quality. Often turns one ear towards the speaker or sound source. Is inattentive or disruptive in class. Frequently misunderstands or misinterprets oral instruction. Copies peers' work. Waits for cues from peers rather than the teacher before attempting tasks. Refuses to participate in activities. Is easily frustrated and becomes agitated and disruptive. Can appear to be a loner. Is made fun of by other class members because he/she confuses things and misses cues. Voice volume is noticeably louder than peers. Suffers a lot of colds.		

If after performing checklists and from your observations of children you suspect that a child is suffering from OM or chronic hearing loss, the following simple and effective referral channels should be observed. Remember that a child with hearing loss and OM is not only the classroom teacher's responsibility.

1. Through observation and checklists performed you confirm that a child is suffering OM with a resulting conductive hearing loss.
2. Talk with your Aboriginal Education Assistant (AEA). With your AEA organise a meeting with the child's parents or guardians. Let the AEA arrange this meeting whenever it suits parents or guardians.
3. With parents' permission, refer the child for a hearing test to one of the following personnel depending on resources. It should be noted that the availability of personnel will vary depending on regional resources.
 - School nurse
 - Aboriginal health worker
 - Aboriginal Medical Service
 - Nurse audiometrist
 - Regional audiologist.

Once hearing loss is confirmed refer the child to the Itinerant Support Teacher Hearing Impairment (ISTH). Develop a program in consultation with:

- ISTH
- AEA
- AERT
- Parents/guardians.



Classroom Teachers' Responsibilities

'The average Aboriginal child attending a primary school brings to the classroom a built-in distortion: his middle ear disorder. Then he/she encounters noise making and possible poor room acoustics. His teacher's voice is always crystal clear, but it belongs to a different culture. The inflections are different as also is the rate of utterance, much of the vocabulary is unfamiliar. Physical constraints of the classroom and the need for orderly behaviour deprive him of many non-auditory cues to communication; facial animation, movement, gesture, emotion, and he/she is thrown back into his/her auditory resources, the very areas in which he/she is less capable. But add to this the probability that he/she is sick, that his/her nose is running ... then add the gnawing persuasion that the subject matter of their curriculum is alien to their needs and expectations of their culture. Add the unremitting spectre of past defeats, combine all these in one child and you really have a scholar on your hands.' (Lewis, 1978)

While hearing loss is a health problem, the high levels of hearing loss in Aboriginal children at school have obvious educational implications. Otitis media and its effects on children make it essential that teachers utilise strategies for hearing-impaired children as part of their normal classroom management. This will benefit all students in the classroom.

There has been concern for some time about the high levels of attrition of Aboriginal students in NSW and it is increasingly recognised that alienation from the mainstream educational systems is the major factor. This clearly suggests that hearing loss plays a significant role in the attrition and alienation that Aboriginal students feel. Therefore, it is imperative that teachers take remedial action in a culturally appropriate manner and promote otitis media education and prevention in their schools.

Specific Responsibilities

- Ensure that hearing-impaired students feel accepted in the classroom. Your positive attitude will help them to succeed, and will also help other members of the class to support these students' strengths.
- Observe these children carefully in order to understand their strengths and weaknesses. This will allow you to develop strategies that provide many situations where they can succeed. Maintaining a healthy self-esteem is a priority in the education of these children.
- Try to avoid giving special privileges due to the hearing loss. For example, do not accept bad classroom behaviour because of the hearing loss. Make sure that children with a hearing loss fully understand all instructions.

- Teach the other students in the class about hearing impairment. Peer empathy achieves a great deal. Through discussion and observation, classmates will come to recognise the other skills that hearing-impaired children must develop in order to cope in the classroom. The development of understanding in peers will improve communication for all in the class. This needs to be done with great care and sensitivity.
- Encourage peer tutoring and group work where those students who have a hearing loss are supported by those who do not.
- Support the use of Aboriginal English in the classroom. In encouraging the use of Aboriginal English, you should remember that it is not your responsibility to teach or speak Aboriginal English. It is your responsibility, however, to provide a classroom environment that nurtures and supports Aboriginal children's language development in their first language, and that is Aboriginal English.
- Be aware of the signs and symptoms of a hearing loss and act on it.
- Do not treat a child with a hearing loss as a behavioural problem.
- Utilise the resources available regarding children's hearing loss. If you do not, these children's learning difficulties will be carried with them throughout their lives.
- Alert the child's parents/guardians to any suspected hearing loss.
- Incorporate auditory training strategies, speech-discrimination skills and language-development techniques into the curriculum.
- Inform parents/guardians of the child's progress in educational programs specific for hearing impairment. Maintain a positive and optimistic attitude regarding the child's progress.
- Liaise and work with the Aboriginal Education Assistant (AEA), the Aboriginal Education Resource Teacher (AERT) and Itinerant Support Teacher Hearing Impairment (ISTH).

Teaching Strategies

Section IV of this document deals with strategies in more detail. The following are good teaching practices that should easily become part of positive classroom management, as they will assist not only the hearing impaired, but all students.

- Organise instruction so that students have maximum visual cues by standing in a well-lit area facing students while teaching, and seat children in a large circle during group work so that all faces can be seen.



- Maintain routines in classroom activities so that children know what is expected of them, even if they cannot hear instructions well. This leaves less room for confusion and reduces the negative reactions that go with failure, ie withdrawal and disruptive behaviour.
- Encourage the use of observation as a learning activity. This includes observation of you as the teacher, modelling responses expected of students, as well as observation of peers.
- Ask more able students to do a task first so that the rest of the class have the opportunity to watch.
- Foster and maintain friendship groups among those students who can hear well with those students who have a hearing loss.
- Encourage peer support.
- Utilise Aboriginal teaching styles – observe your AEA, AERT or consult with your local AECG on preferred learning styles of your Aboriginal students.
- Always be sure to get students' attention before speaking.
- Move closer to students before speaking.
- Minimise background noise when expecting students to listen.
- Increase non-verbal content of communication, ie facial expressions and gestures.
- Encourage group work situations where the teacher can move from group to group ensuring children have a full understanding of the tasks set.
- Make it fun.



Section 3





Otitis Media and Cultural Issues

Children suffering with OM and CHL have a number of ways of coping in school (see Behaviour Checklist on page 24).

These coping mechanisms demand that children with a hearing loss must direct a great deal of energy and concentration towards surviving in the classroom, effort that would otherwise be channelled towards achieving their goals. For the Aboriginal child with OM or a CHL there is a double disadvantage. First, there is the challenge of surviving in the classroom with an often unnoticed hearing loss. Second, there is the challenge of coping in what is often felt as a culturally unfamiliar school environment. The diverse cultural background from which the Aboriginal child comes means that there may be differences that are not recognised in the environment of the school and classroom. These unrecognised differences, combined with a hearing loss, add to the disadvantage that the Aboriginal child experiences.

Howard (1991) states that cultural continuity results in differences in the behaviour of Aboriginal children, compared with that of non-Aboriginal children, which is not understood by many teachers. When children's cultural differences are not acknowledged and respected by the school and the classroom environment those children are at risk of having their identities threatened. Breakwell (1987) states that when a child feels that his/her identity is threatened it challenges the distinctiveness of self. It is stressful to live with constant threats, and so coping strategies are employed to remove or modify the threat! These coping strategies that are employed may be perceived as inappropriate behaviour by the school and classroom teacher.

The stress generated by the child's threatened identity, through little recognition of individuality and cultural diversity, is only exacerbated by the stress placed on the child trying to cope with a hearing loss in a word-fast classroom, with teaching practices centred on questions and answers.

The feelings generated by the constant threats to identity combined with the stress in coping with a hearing loss will undeniably lead to feelings of inadequacy, failure and doom in this unfamiliar environment.

Some Aboriginal children may enter school unfamiliar with the culture of the Western school environment (non-Aboriginal homes often resemble much of the 'school-culture'). This knowledge may often be assumed by the school. Unfamiliar with the 'secret' language of the environment, combined with a hearing loss, means the child misses many of the essential cues for coping in school. These factors, combined, result in the child experiencing feelings of inadequacy, which will only magnify the Aboriginal child's sense of alienation in the school environment.

Teachers must be sensitive to the fact that much of the school culture is assumed knowledge and understanding. Teachers must be cognisant that Aboriginal children may not know the secret language and cultural rules of the school and classroom.

A child with a hearing loss may have missed out on stages of early language acquisition. This will put that child at a disadvantage in easily acquiring new language and 'secret' school language upon entering school. The gaps in language learning experienced by children with recurring episodes of OM do not, however, mean that they cannot acquire the new school language. It requires dedication and empathy on behalf of the teacher, AEA, AERT, parents/caregivers and other support people to begin to fill the gaps for the Aboriginal child. The most appropriate and receptive environment in which this can occur is a classroom that values cultural diversity and individuality, and makes no assumptions about the existence of cultural norms.

The work of Malin (1990), Harris and others suggests that Aboriginal children may have preferences for different learning styles from those found in the typical Western classroom. They suggest that some of the following ways of learning and communicating may be preferred by Aboriginal students:

- real life activities
- observation and imitation
- eye contact
- silence (questioning) pause in answering question and the right not to answer
- peer support/learning from older children
- person oriented rather than information oriented
- learning through personal trial and error
- practice of new skill until fluent.

If we examine these closely, we could observe that these communication strategies are characteristic of the way in which many children learn. It is important, therefore, that teachers are aware of these possible differences or preferences and provide an environment that nurtures and develops them further.

Importantly, for the child with a hearing loss, these styles may be adapted by the child as coping mechanisms for the hearing loss, eg observation of peers. Teachers should be aware of these learning styles, possibly characteristic of some Aboriginal children, and determine if a child is using them to cope with an unnoticed hearing loss. The teacher can be instrumental in developing these learning styles in the classroom for the benefit of all children. In doing so, the teacher is recognising diversity of culture and saying to the children that their individuality and background is respected. This can only lead towards a positive and receptive environment for all children – Aboriginal, non-Aboriginal and those with a hearing loss.



Otitis Media and Aboriginal English

Aboriginal English is the first language of many Aboriginal children in New South Wales, as throughout the whole of Australia. In subtle ways this language, an Aboriginalised form of English, is a powerful vehicle for the expression of Aboriginal identity. But it is often denigrated on the one hand, and misunderstood on the other hand, by people who mistakenly think that Aboriginal children are speaking some kind of bad English.

In linguistic terms, the differences between Aboriginal English and other kinds of English are dialectal differences. Aboriginal English is, strictly speaking, a dialect of English (Eades, 1994).

In some cases teachers who do not recognise the use of Aboriginal English may be attempting to teach children with a barrage of unfamiliar sounds and words that they cannot possibly unscramble or whose meanings they cannot sort out. In light of this, it is important that the child's home language be accepted by teachers and that they feel familiar and comfortable with it. This should be extended and used as a basis to build up an understanding of standard classroom English.

It is imperative that teachers equally value the importance of language competence in both dialects if children are to feel valued and worthwhile in the classroom. A skilled teacher will attempt to utilise both dialects in meaningful situations. For example:

- using standard English to write to a member of the Aboriginal and Torres Strait Islander Commission (ATSIC);
- asking children to write a story about Aboriginal Week using Aboriginal English;
- asking children to retell traditional nursery rhymes in Aboriginal English; and
- having children interview community members using a tape recorder and compiling their comments into a community profile book for the school library.

A teacher's rejection of Aboriginal English may often be interpreted by Aboriginal children as devaluing their Aboriginality. For Aboriginal children to do well at school, they need to feel secure about their place in the classroom and, more importantly, their place in the world. It is the teacher's responsibility to acknowledge and nurture the home language in order to maintain the children's self-esteem. Valuing the children's use of Aboriginal English goes further than accepting it as another dialect of English: in fact, it tells the children you value them, their parents and the community.

Aboriginal English is not a Languages Other Than English (LOTE) subject. It is not the teacher's responsibility to speak or teach Aboriginal English. It is the teacher's responsibility, however, to provide an environment for children that nurtures and promotes their use of Aboriginal English and that encourages the experience and exploration of many variants of English.

As the home language of Aboriginal students, Aboriginal English must be used to develop a framework for acquisition of the language of mainstream education. Sherwood (1992) states that 'a hearing loss within the first five years means that the child has missed out on a lot of his/her home language'. Because of the hearing loss these children are not hearing parts of the language in both their home language, Aboriginal English, and in standard English. The language missed as a result of the hearing loss will make literacy acquisition extremely difficult because the children do not have the basic foundations in their own language to build on. Hearing loss creates for the child a language delay as it hinders the progress of development of words and their usage.

'The fact that the language of instruction is not the child's first language and the general failure to recognise Aboriginal cultural diversity, the use of culturally exclusive teaching strategies and all other factors that are known to impede learning need to be recognised' (Sherwood, 1992). These factors may compound the hearing loss.

It is imperative that Aboriginal people are involved in assisting the literacy and language development of their children. In particular, there needs to be far greater utilisation of the AEA and the AERT in the classrooms and in the staffrooms. Aboriginal communities also need to be involved in the development of programs and strategies.

It is essential that teachers do not confuse poor speech with Aboriginal English. Whenever a teacher is concerned about a child's speech, the AEA and/or the AERT or community support person should be requested to determine if the child has a speech problem or shows identifiable speech maturation in Aboriginal English. This support network is an important resource to be utilised by the classroom teacher.

The hearing-impaired Aboriginal child may be inconsistent in the ability to hear sounds and be confused by sound due to fluctuating levels of middle-ear fluid and the changing health of the eardrum.

Hearing-impaired children will have difficulty:

- remembering sound pairs;
- matching what they hear to what they repeat;
- matching what you say to what they hear themselves say;
- sequencing sounds; and
- producing sounds consistently.

(Compiled by the Kimberley Catholic Education Language Team 'Breaking the Sound Barrier'.)



Classroom teachers in consultation with AEAs and AERTs need to:

- provide many opportunities for children to hear and practise classroom English;
- model correct standard English consistently;
- teach children to distinguish between potentially confusing sounds;
- integrate sound awareness into a whole language program using reading and writing in meaningful situations; and
- demonstrate how to produce these sounds.

By valuing Aboriginal English in the classroom you are providing the key learning path for a child to succeed in language development. Success for these children does not come easily, and so providing them with opportunities to use meaningful language can only reinforce their hunger for experimentation in other language genres.

A skilled classroom teacher can engender confidence in children to utilise different English genres. This confidence building is paramount in developing positive self-esteem that many of these children are lacking.

Continuity and Transition for Aboriginal Students

'To assist Aboriginal children in the transition from home to early childhood setting, educators must have knowledge and understanding about traditional and contemporary Aboriginal culture. It is important to recognise the cultural identity of the child and the attitudes of Aboriginal parents and community towards education. Understanding and using the strategies which best support young Aboriginal children's learning is to ensure successful outcomes for these children.' (p 103 *Learning in Early Childhood. What does it mean practice?*, DSE of South Australia).

Transition from home to school is an extremely important part of a child's education, as at this early stage they develop attitudes about school that can last throughout their life. It is crucial that the transition is a continuum of the home environment and that learning at school builds on the foundation of knowledge and skills developed at home. The continuity in transition will be a major factor in developing positive attitudes to learning and school. For most non-Aboriginal children, the school environment and their teachers are culturally familiar. For Aboriginal children, the world they enter into can be culturally alien and it is our duty as educators to strive toward developing culturally relevant curriculum and classroom practice.

It is important that information regarding a child's history of otitis media and conductive hearing loss is passed onto the school and classroom teacher. If the child has received treatment such as speech therapy, reading recovery and language remediation, progress reports should be forwarded to the school.

Parents, AEs and AERTs can assist classroom teachers in developing a sense of home language maturation. It is important that effective communication occurs between primary school and high school regarding hearing loss and remediation.

‘To optimise the learning of children in their first year of school, the transition from home to school must fully support continuity of learning environments and learning styles. The transition to school must be a gentle experience, involving all adults important to the child. As one of these important adults, the teacher must ensure that the curriculum and methodologies used in the classroom are culturally inclusive and are an extension of the home environment.’ (McConville, 1992)



Section 4





Consultative Process

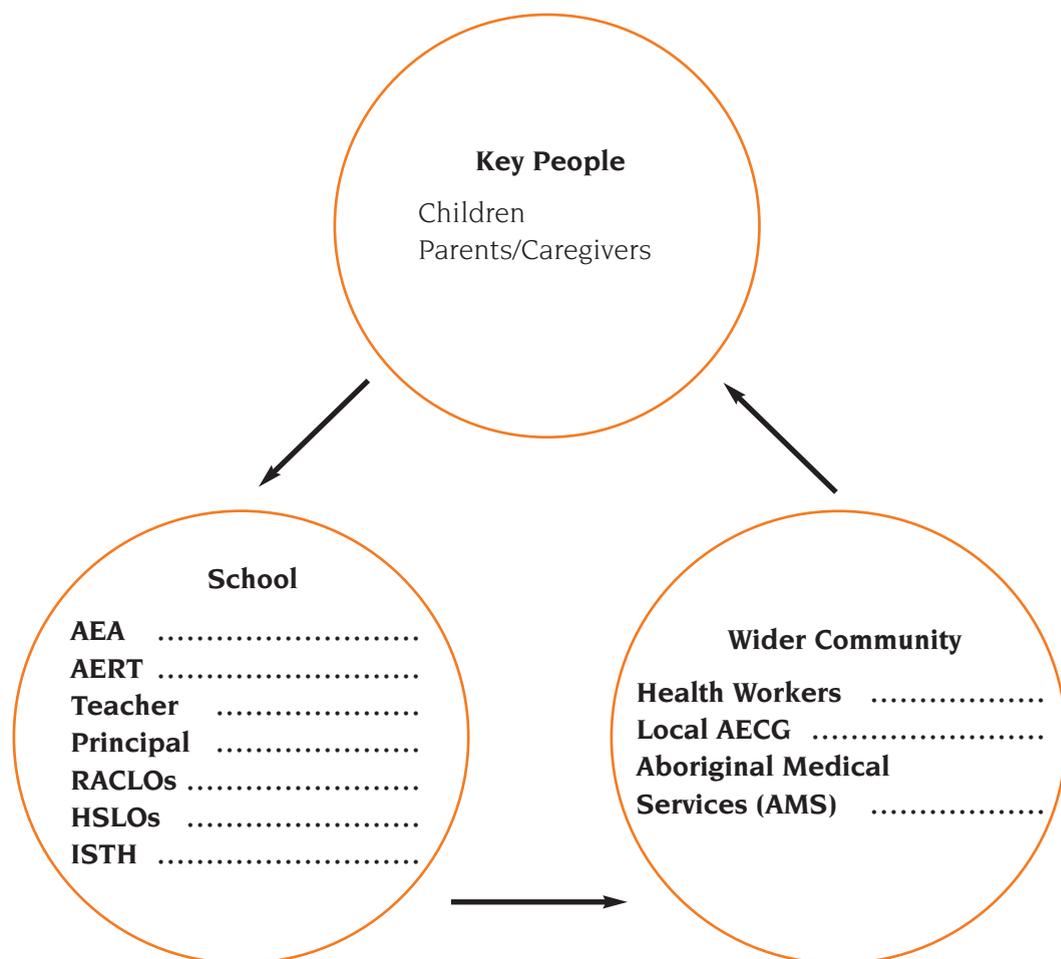
A team approach to the treatment of otitis media and conductive hearing loss is essential for the effective management of the problem. The following people are potential members of a community team:

- parents/guardians;
- Regional Consultant in Aboriginal Education (RCAE);
- Regional Aboriginal Community Liaison Officer (RACLO);
- Aboriginal Education Assistant (AEA);
- Aboriginal Education Resource Teacher (AERT);
- classroom teacher;
- school executive members;
- assistant principal, executive teachers, principal;
- Itinerant Support Teacher Hearing Impairment (ISTH);
- community health nurse;
- audiometrist/audiologist;
- health workers;
- area medical officer/general practitioner; and
- Australian Hearing Services.

It is essential that the team develops operating procedures that are appropriate for your local area. Your local community is the best source of knowledge as to the most appropriate methods, channels and needs for your local area.

Schools need to develop and implement programs to identify students with a current hearing loss. These programs need to be developed at a local level so that they are suited to the school environment and in order that children's needs are taken into consideration. There is a need to be realistic about resources available to the school in regard to developing the best possible programs for these children. Each school should attempt to develop its own school-based resource personnel list with contact numbers available to all staff.

Access to Aboriginal teachers and AEAs should be considered a priority when providing resources to Aboriginal children with hearing loss. Where schools have no Aboriginal teachers, and the AEA is overloaded, steps should be taken on a school level to involve the community. The following diagram will assist you in developing your own school profile to help you in the management of otitis media.



Key

AEA – Aboriginal Education Assistant

RACLOs – Regional Aboriginal Community Liaison Officer

AERT – Aboriginal Education Reserve Teacher

HSLOs – Home School Liaison Officer

ISTH – Itinerant Support Teacher (Hearing Impairment)



Community Consultation

Aboriginal communities and organisations have the greatest source of knowledge when it comes to the educational and cultural needs of their children. Parents are good role models for classrooms to foster positive learning attitudes for children. The Aboriginal community knows and understands the needs of their children and can assist teachers in gaining this understanding, and also in the development of programs that best suit Aboriginal children's needs. Successful consultation with Aboriginal communities is based on the concept of trust. Always be sure to discuss any ideas concerning involvement of your local community with your AEA or local AECG.

Consultation: What is it?

- A two-way process, that is a partnership and not a power relationship.
- An ongoing process.
- A process requiring negotiation, listening, flexibility, open-mindedness.
- A process that takes account of the great diversity within and between Aboriginal communities and individuals.

Consultation: Why do it?

Aboriginal people are the custodians of their own cultures. They are the greatest source of knowledge of their own needs, their learning process and the ways in which learning takes place and the most effective ways and environments in which their children learn.

Consultation: How to do it

- Have an understanding of Aboriginality.
- Spend time and effort developing positive relationships between the school and the community and between people.
- Initiate situations where the community can come and meet you away from school, eg community BBQ.
- Utilise all your networks to improve communication and consultation.
- Be introduced to the Aboriginal community by someone from that community or by someone that the community knows and trusts.
- Offer information about yourself and the program you are introducing.

Source: *Local Area Studies Guide for Teachers of Aboriginal Studies*, the Koori Centre, University of Sydney.

The Koori Centre, University of Sydney, has developed a *Local Area Studies Guide for Teachers of Aboriginal Studies* that assists teachers when conducting local area studies or working with local Aboriginal communities. The package clearly outlines the correct procedures to be utilised when working with your local community and provides extensive strategies to ensure appropriate consultation.

Schools can purchase this package from the Koori Centre at the university.

Aboriginal Education Assistant (AEA)

AEAs are the most important resource people at your school as they are your link to the community and the Aboriginal students. They have the knowledge and skills to develop culturally appropriate teaching strategies that are necessary in educating Aboriginal children with otitis media and conductive hearing loss.

Aboriginal Education Resource Teacher (AERT)

The AERT is responsible for assisting teachers in developing culturally appropriate language and listening activities that will assist Aboriginal children in developing strength and confidence in language learning.

Itinerant Support Teacher Hearing Impairment (ISTH)

The itinerant support teacher for hearing impairment works specifically with children who are hearing impaired and can assist schools in developing teaching strategies and resources for these children.

Together with AEAs, they have an important role in providing education for teachers, parents, communities and health workers regarding the educational implications of chronic OM and conductive hearing loss.

These people are able to assist in team teaching and professional development in order to provide classroom teachers with effective teaching strategies for children with conductive hearing loss.

For further information regarding ISTHs contact the Principal Education Officer of Special Education in the regional office of the Department of School Education.

Some ISTH positions in each region, as part of their role and responsibility, address through school staff the needs of Aboriginal and other students with conductive hearing loss arising from chronic otitis media.

As a general rule, individual students in the ISTH program will not become a long-term part of the teacher's caseload.

Medical procedures such as screening programs or ear hygiene should not be the responsibility of a teacher or a teacher's aide. Education advice and team participation with medical professionals, audiologists and community representatives is appropriate but must be addressed strictly from an educational point of view.



Ownership of the students' educational program belongs to the students' own school staff.

An ISTH working on otitis media/conductive hearing loss may offer the following types of service:

- provision and sharing of skills, knowledge, resources
- team-teaching mode
- short-term group withdrawal mode
- collaborative programming
- individual and staff professional development
- team presentations in the community.

Networking

The NSW Aboriginal Education Consultative Group Inc is an independent, incorporated, community-based and community-controlled Aboriginal organisation established with the specific charter to provide community-based Aboriginal advice and guidance to the Ministry of Education and Youth Affairs on the direction of Aboriginal education in NSW. The NSW AECG's involvement and expertise extends from early childhood education through to higher education.

The NSW AECG also provides advice to all education providers from government systems, such as the Department of School Education and TAFE, to the universities, independent schools and independent Aboriginal providers.

The principal aim of the NSW AECG is to involve Aboriginal people and communities in educational decision making in all sectors of Aboriginal education at the local, regional and state levels. With the advent of the Federation of AECGs this advice can now extend to the national and even international arena.

The principal policy objectives of the NSW AECG are as follows:

- the involvement of Aboriginal communities in all levels of education and the strengthening of the local and regional AECG networks;
- the provision of appropriate community education and skills development to empower Aboriginal communities to play an effective role in education;
- the development of culturally appropriate policies and programs in Aboriginal education so as to enhance the unique cultural identity of Aboriginal students and promote pride in Aboriginality;

- the promotion of Aboriginal Studies and of Aboriginal perspectives in all areas of the curriculum, particularly in teacher education, in order to both enhance Aboriginal education outcomes and to improve wider community understanding and appreciation of Aboriginal history, culture and heritage;
- resource production to support Aboriginal Studies and Aboriginal perspectives;
- research into all aspects of Aboriginal education.

Strategies and Activities for Teachers

The examples used here are meant as a guide to the possible strategies and activities that can be developed to assist children with OM in your classroom.

It is essential when utilising these strategies and activities that teachers consult with AEAs to ensure that they are appropriate for the local area and the language needs of the Aboriginal children.

Teachers should be encouraged to further develop these activities, and use them as possible guidelines for the development of their own resources.

All of the strategies and activities mentioned foster the development of positive teaching methodologies and classroom management practices.

It is presumed that, in the utilisation of these strategies and activities, they will become an integral part of every teacher's 'good' classroom management profile.

Strategies

Reduce noise in the classroom

- Use soft furnishings, eg bean bags, cushions.
- Repair or turn off noisy air conditioners.
- Carpet the classroom.
- Line the ceilings and walls with inexpensive sound-absorbent materials, eg hessian, paints, egg cartons, wall friezes, artworks, book cases, etc,
- Timetable classroom activities so that they complement other classes around you, ie so you are not doing a language activity while the class next door is in music class.
- Use artworks and 3-D designs to help absorb the sound.
- Encourage all the children to limit excess noise.
- Ensure there is little activity outside when teaching.



With the students

- Observe which children have runny ears.
- Keep the children with sore ears and a known hearing loss close by.
- Work in small groups.
- Keep the distance between yourself and the children at a minimum.
- Ensure that children can always see your face.
- Provide greater opportunity for active involvement and interaction.
- Implement an oral language program in both the first and second languages.
- Ensure that you have plenty of light on your face.
- Always face the children when talking to them.
- Make sure the children are quiet when you want to talk to them.
- When another student is reading aloud/holding discussions, encourage all the class to face them.

Your teaching style

- Secure the students' attention before giving instructions or asking questions.
- Have the light source behind the student and on your face. Do not stand at the window as your face will be in the shadow.
- When speaking aloud, be careful not to obscure your face with your hands or a book.
- Do not talk to the chalkboard.
- Use visual aids as much as possible.
- Note the key points on the board.
- Check that the students understand what they have to do.
- Ask open-ended questions, not those that merely require a yes/no answer.
- Be aware of problems that can occur in spelling, dictation or note-taking lessons.
- Encourage students to let you know if they can't hear or have not understood.

- Use a buddy system if necessary.
- Establish class routines so students know what activity they are working on and what comes next.
- Indicate topic changes clearly.

BBC Program (Breathing, Blowing, Coughing Program)

The BBC program was developed by Ruth Barker, a physiotherapist from Alice Springs. It is a strategy used in schools throughout Australia. This program is effective as it actually reduces the causes of OM such as cold, flu and asthma by improving the health of the respiratory tract.

Using the Valsva Method (holding nose and blowing air in mouth with the lips shut until the ears pop) assists in exercising the Eustachian tube. This method will improve the Eustachian's tube ability to drain any fluid in the middle-ear space.

Our 'Healthy Kids' – Blowing, Breathing, Coughing (BBC) Program

- First I blow my nose. One side, then the other side.
- Then I check if it's empty.
- Then I hold my nose and blow my nose to pop my ears.
- Then I take 5 deep breaths and have 2 big strong coughs.
- I do 10 star jumps.
- Then I take 5 deep breaths and 2 big strong coughs again.
- I run around the big tree in the playground.
- Then, last of all, I empty my nose, I pop my nose and have a big cough. That's all.

Towards a Solution: Culturally Responsive Pedagogy

'Towards a Solution: Culturally Responsive Pedagogy' by Damien Howard appears in the publication *Aboriginal Kids in Urban Classrooms*, Howard, D, 1993.

Below are some examples of what Damien Howard sees as features of culturally responsive pedagogy already occurring in some Darwin classrooms. These examples are not formulae to achieve culturally responsive pedagogy; they are descriptions of practices that appear to foster greater participation of Aboriginal students, especially those with hearing loss, in school learning. These strategies are developed in direct relation to children with hearing loss in the mainstream classroom.



Teaching in ways Aboriginal students can best learn

(a) Establishing positive relationships with students

A warm and positive relationship with teachers is crucial for Aboriginal students' learning (Harris, 1982; Harris et al, 1992). While non-Aboriginal students are often able to constructively engage in classroom tasks without this type of relationship with their teacher, social comfort is generally essential for Aboriginal students to be successful learners. However, there are some obstacles to these types of relationships inherent in notions of 'teacher professionalism'; for example, the perceived need for teachers to maintain a certain degree of formality with students and to relate to them primarily through the 'role' of teacher. This kind of teacher most often fails to motivate Aboriginal students. Conversely, teachers who respond warmly and personally towards Aboriginal students motivate them to want to learn. The willingness and ability of teachers to step outside their conventional role and respond as 'people' is an essential element of culturally responsive pedagogy for Aboriginal students. Teachers were observed to establish this type of relationship in many ways: sharing a joke with students, putting a hand on a student's shoulder when talking together and spending time together outside the usual classroom contexts, for example on camps, in sporting activities or in homework groups.

(b) Supporting learning from peers

Aboriginal students come to school without the degree of dependence on adults that characterises non-Aboriginal children. They are used to learning by observing peers and being helped by peers. However, as discussed earlier, many teachers see this focus on peers only negatively – as a problem which inhibits learning. They urge students to seek help from them as 'the teacher' and to work independently. These teachers are constantly involved in 'policing' Aboriginal students' attempts to seek help from, or offer help to, each other.

In contrast, there are some classrooms where this culturally derived learning asset is actively fostered and where Aboriginal students' focusing on peers is accepted. Students requesting help or offering help to each other is encouraged. Teachers are not 'offended' by students monitoring each other's work as a means of evaluating the quality of their own. In fact, students are encouraged to show each other what they have done as a means of developing higher expectations for their own work. A teacher in one such classroom described how he had come to view himself as a facilitator of learning rather than as the 'teacher' from whom all learning emanates and by whom all learning must be evaluated.

This teacher's multi-grade class group was able to provide most students with easy access to peers to monitor and learn from, as would often occur outside school. In contrast, streaming into relatively homogeneous class groups can make peer learning more difficult. As mentioned earlier, students with hearing loss are particularly advantaged by being able to observe peers and by having access to more than one source of auditory information in class.

(c) Considering timing

Aboriginal sense of time differs from that of non-Aboriginal people in a number of ways. These include the following: differences in the appropriate pause time before answering a question, and the importance of ceasing to work on something at a set time before its completion. Further, Aboriginal students' preference to observe others at a task before trying it themselves means students may wish to attempt a task for which, in the teacher's mind, the time has passed. Daily programs are often treated, especially by new teachers, as a prescriptive document which overrides student interest. Aboriginal students are often frustrated by classroom activities that are driven by timetables which ignore their interest – interest which may take longer than anticipated to develop, only to be cut short by time restrictions. This is often demonstrated in the reluctance of Aboriginal students to 'pack up' before they have completed the task they are working on. In discussions with Aboriginal parents about school, this is often mentioned as something about school that frustrates their children.

Teachers can avoid this frustration by trying to be flexible in their programming and responsive to student interests – for example, allowing students enough time to develop interests as well as to master a task. One teacher reported how she only realised the frustration her programming was causing some Aboriginal students when they consistently asked to be able to use free time to undertake work that other students had completed the week before. The expectation behind conventional school timetabling is that all students can and will master a task in the same time block. This expectation ignores many Aboriginal students, and especially those with hearing loss, in their preference to observe others' efforts before they make a serious attempt at the task. One way of catering for this preference is to return to an activity a number of times, so that less confident students are provided with the opportunity to observe others before going on to master the task themselves.

(d) Enabling Aboriginal students' real-life skills to be demonstrated at school

During a lesson on 'making toast' in a Grade 1 class in Darwin, the Aboriginal students were much more successful than non-Aboriginal students at actually making toast. Aboriginal students needed no teacher instruction to put the bread in the toaster, to butter and put a spread on the toast, as they



had often done the same at home. In contrast, the non-Aboriginal students, whose parents always made their breakfast for them, needed to be told what to do at each step. Later, when it came to writing about the lesson, however, the Aboriginal students had to be constantly encouraged and helped to write. This illustrates the cultural differences in child rearing which result in Aboriginal students arriving at school with 'enormous practical competencies' (Malin 1990), while non-Aboriginal children are comparatively incompetent in this regard and dependent on adults in real-life skills. On the other hand, non-Aboriginal students are more adept at using language as a medium of learning. This constitutes 'culture capital' which pays dividends in non-Aboriginal schools where talking or writing about activities is valued more highly than physical competency in the activities themselves.

Again, some schools and teachers are exceptions. Instead of ignoring students' practical competencies, they attempt to program activities around them so as to build academic work on real-life skills. These activities often include traditional bush skills, as well as other practical living skills. One example was a program called 'meals on legs' which involved Aboriginal girls running a lunch for school staff one day a week. The program involved the recognition of these students: competency in cooking as well as providing a 'real-life' maths and literacy context.

Listening and Hearing – What's the Difference?

A parallel could be drawn with adult/child interaction during a reading session.

The adult with several children around him/her, all reading different books at the same time while she/he marks books or directs others, is *not* listening to children read. One can suppose the adult hears the children reading — but it is highly unlikely that they could be listening. Listening involves some kind of critical analysis; it is an *active* process. Hearing is *passive*.

When a child has a permanent hearing loss, that child's capacity to hear sounds will not improve. However, that child's capacity to listen can be improved. We can all learn to be better listeners.

Why Learn to Listen?

Listening is one of the major ways in which we learn. People tell us things. Teachers are always talking, giving information, instructions, praise etc.

Speech is the principal form of communication in schools, so if children are not listening ... they miss out.

Why Aren't Some Children Listening?

They have gotten out of the habit because:

- classroom activities are failing to capture their interest;
- they have/had a middle-ear infection which makes listening difficult/tiring and it is easier to 'tune out' (listening is a skill which needs to be worked at);
- they are easily distracted by something else;
- background noise is too great;
- they have poor attention skills which are correlated to poor listening skills.

So What Can You Do?

You could employ the following strategies:

- Secure the child's attention before giving an instruction. Say: 'May I see your eyes?' 'Show me your face'.
- Make sure the child can see your face.
- Make instructions as precise as possible.
- Avoid multiple instructions. Check for feedback to ensure that the child has understood a more complex instruction.
- Make sure the lighting is good.
- Invite interesting visitors to the classroom to relate experiences or to tell stories.

These are simple strategies, but don't underestimate their importance.

Be interesting. Consciously vary your intonation. Be self-critical. Are you worth listening to? (Remember how easy it can be to tune out of boring meetings, tedious lectures etc.)

You could consciously *teach* listening skills. This could involve only a few minutes each day, but the change in the children's responses is surprising ... Try it and see!

Some Suggestions

Discuss with the children the importance of listening. What sorts of things do they listen to? All be quiet. What can they hear?

- Whisper messages to each other.
- Try whispering when everyone else is making a noise.



- Whisper a message around a circle.
- Give each other instructions to follow. Start with one thing, then build up to more things. Who can listen and remember to do lots of things?
- Have a box of musical instruments and take turns – one person ‘plays’ an instrument, everyone else with their eyes closed listen and tell which instrument was played.
- Fast forward and rewind through a tape of familiar nursery rhymes/songs. Whose hand will go up to tell which song is playing?
Play ‘Good Morning ...’ ‘Simon says ...’

Other suggestions are available – ask your visiting teacher.

Many teachers find ‘The Freeze Technique’ invaluable in attracting attention and preparing children to LISTEN.

Give it a go!

(Howard, D. *Aboriginal Children in Urban Classrooms*, Social Science Press, 1994)

Some Useful Classroom Activities

Specific listening games

Buzz 1, 2, 3 ... 10 buzz

Children stand in circle.

Teacher and class count 1 to 10 around group.

Person after 10 says ‘Buzz’ and sits down.

Restart at 1.

Continue until last person left standing is the winner.

Variations include:

- using different numbers,
- child-directed,
- Maori counting etc.

Listening tape, eg environmental tape

Children match sounds on tape to picture.

Chinese whispers

Message passes around class or group.

The aim is to get the same message at the end of the activity.

What's going on? (K-2)

Listening experiences: Perceiving sounds in the immediate area and paying attention to them. Becoming aware of routine sounds and talking about them.

Say to the children: 'There are sounds about us all the time, but sometimes we don't think about them. Let's put our heads down and close our eyes. We'll be very quiet and listen. At the end of two minutes we will raise our heads and tell what we've heard.'

After the children have raised their heads, ask, 'What sounds did you hear?'

Children may give such answers as coughing, traffic, music in the next classroom, shuffling feet, a train whistle, a bus horn, the wind, children in the hall, water running in the lavatory.

Variation

- This activity may also be used outdoors. It is especially effective for a rest period during a nature hike.

Listening and Doing

Age group: Kindergarten to Year 2.

Number of players: Small groups or whole class.

Materials required: 1 tape recorder, 1 tape pre-recorded with sounds, eg animal noises, engines, trains, etc.

Procedure: Children close their eyes as one sound is played. Children then mime what they believe has made the sound. Repeat for other sounds.

Story Sounds

Children enjoy contributing animal sounds on cue as the teacher tells or reads a story. The teacher should read the story once and on the second reading encourage the children to listen for animal names.

When the teacher mentions the name of an animal, children chorus the sound that the animal makes. To add interest to the listening, children can divide into groups, each group taking responsibility for listening for one animal name and making the sound of it at the appropriate story points.



Stories good for this purpose include 'Henny Penny', 'The Bremen Town Musicians', and 'The Old Woman and Her Pig'. All are found in the *Anthology of Children's Literature* compiled by Johnson, Sickels, Sayers, and Horovitz (Houghton Mifflin 1977).

Listening to such stories as 'The Old Woman and Her Pig' children can brainstorm numbers of sounds they associate with particular inanimate objects and people and select the 'best' ones to use as part of story responding. At each mention of the cue word (eg with fire – crackle, crackle; with stick – break, break) children contribute the chosen sound.

Other Activities

1. Get children to write their own books and record them onto tape.
2. Comic strips — utilise comics with empty balloons. Children to write scenarios. These can be recorded onto tape.
3. Listen to stories on tape. Teacher to show characters or objects from the story which are on cards. For example:

This is a hen

This is a pig

Teacher then asks the child to point to the characters. For example:

Point to the hen

Point to the pig

4. Cloze activities, sequencing, retelling of stories. Stories can be cut up into sentences and jumbled. Children have to sequence them correctly.
5. Guessing game — For example, a person who cuts hair and a person who puts out fires.

Children choose a word or picture for the correct character.

6. Follow the street map — Children follow map under direction of teacher or partner.
7. Lateral thinking games, eg Draw a circle with a cross in it.
8. Environmental sounds — Children name environmental sounds heard.

Barrier Games

This method can be used for a variety of different games, played with either an individual child or adapted to group or class level.

A barrier, eg a book or folder, is placed between child and teacher. The teacher then gives an instruction to the child and both the child and the teacher carry out the instruction. At the completion of the activity compare the teacher's and pupil's worksheet or object and discuss the differences (errors) and why they may have occurred.

Examples of Activities

1. Build objects from Lego or Duplo.
2. Draw pictures by following oral directions/instructions, eg a yellow sun in the top left hand corner of your page.
3. Circle the word that tells me what I drink from (cup). Put a star on top of the word that tells me how you get to school (bus).
4. Use a black and white picture and give instructions, eg draw a cross on the man taking his dog for a walk.
5. Bingo — focus on sounds missed by CHL vowels: m n ng s f t th p sh.

Use pictures for non-readers.
 Put a block on mum.
 Put a block on suit.

mum	seat				
sum	suit				

Create your own games and activities using a barrier.



Glossary

Aboriginal English, in this book, pertains to the home language used by the children and parents/caregivers of the community. Each community has its own dialect which may differ from other communities due to the richness of their first language and environment.

Acute	comes on quickly with severe symptoms
AEA	Aboriginal Education Assistant
AERT	Aboriginal Education Resource Teacher
Articulate	pronounce distinctly, speak
Audiogram	a record of a hearing test
Audiologist / Audiometrist	people trained to observe test and record hearing test
Audition	hearing
Auditory acuity	acuteness of hearing
Auditory processing	systematic series of actions directed to hearing
BBC	breathing, blowing and coughing program
Chronic	goes on for a long time
Cognitive	thinking
Conductive Hearing Loss	a hearing loss that is due to problems in the outer or middle ear
Effusion	fluid-filled middle ear
Eustachian tube	the tube that connects the ear to the back of the throat and nose; it acts as a valve that equalises air pressure in the middle ear
Fluctuating	goes up and down
Foreign body	something that should not be there
Grommets	small ventilation tubes that create an artificial airway to allow ventilation of the middle-ear space
Inflectors	modulation of the voice, change in pitch or tone of voice

ISTH	Itinerant Support Teacher Hearing Impairment
Intervention	taking action
Linguistics	the science of language
Localisation	the skill in finding the direction of the sound
Meningitis	an infection of the brain that can be caused by a bacterial or viral organism (it may be a complication of otitis media)
Metalinguistics	expression and terms for talking about language
NSW AECG Inc	New South Wales Aboriginal Education Consultative Group Incorporated
Otitis media	the medical term for middle-ear disease
Perforation	hole
Phoneme	unit of significant sound in a given language, ie HEN = H.E.N
RACLO	Regional Aboriginal Community Liaison Officer
RCAE	Regional Consultant in Aboriginal Education
Remediation	treatment
Standard English	'ideal socially and regionally neutral form of educated English' – <i>Australian Pocket Oxford Dictionary</i>



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