### Ear Troubles

## Conductive Hearing Loss, Behaviour Problems and Learning







## Listening survey

Firstly lets check your listening through doing this listening survey that is designed for adults

 You are talking with one other person and there is a TV on in the same room. Without turning the TV down, can you follow what the person you're talking to says?

5	4	3	2	1
Very Easy	Easy	Little bit hard	Hard	Very hard



2. You are talking with one other person in a quiet room. Can you follow what the other person says?

5	4	3	2	1
Very Easy	Easy	Little bit hard	Hard	Very hard



3. You are in a group of about five people, sitting round a table. It is quiet place. Can you follow the conversation?

5	4	3	2	1
Very Easy	Easy	Little bit hard	Hard	Very hard



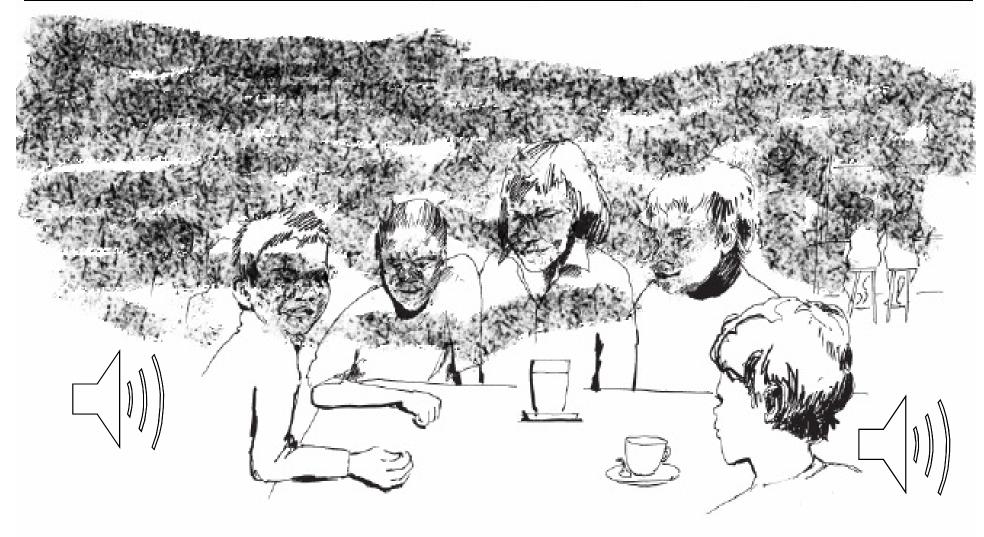
4. You are in a group of about five people in a <u>busy cafe</u>. You can see everyone else in the group. Can you follow the conversation?

5	4	3	2	1
Very Easy	Easy	Little bit hard	Hard	Very hard



5. You are in a group of about five people in a busy cafe. You cannot see everyone else in the group. Can you follow the conversation?

5	4	3	2	1
Very Easy	Easy	Little bit	Hard	Very hard
		hard		



6. You are with a group of people and the conversation <u>switches</u> from one person to another. Can you easily follow the conversation without missing the start of what each new speaker is saying?

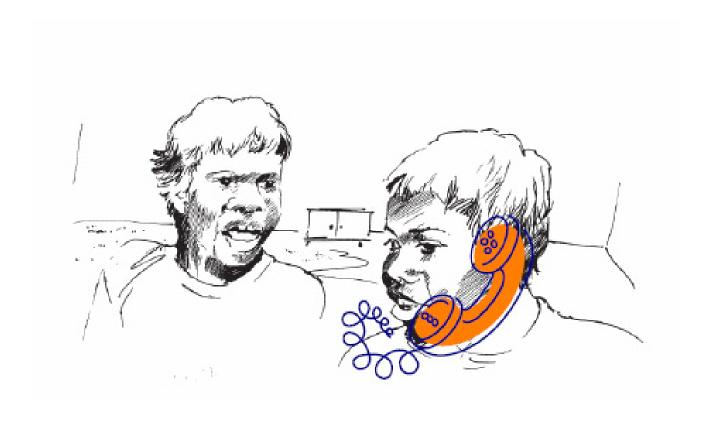
5	4	3	2	1
Very Easy	Easy	Little bit hard	Hard	Very hard





7. You are listening to a person on the telephone and someone next to you starts talking. Can you follow what's being said by <u>both</u> speakers?

5	4	3	2	1
Very Easy	Easy	Little bit hard	Hard	Very hard



## -

Very Little	Little	Some	A fair bit	A lot
1	2	3	4	5

- 8) When it is hard to listen how much stress do you experience?
- 9) When it is hard to listen\_ How frustrated do feel?
- 10) How much do you worry about misunderstanding things said to you?
- 11) Where and when is it most difficult listen at your work?

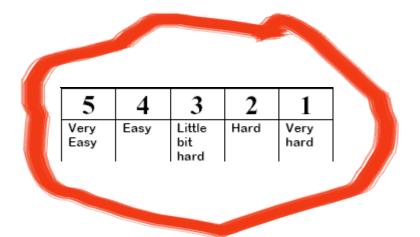
## Your Listening Survey Score

Add up your scores on each question To get a result of between 7 - 35

#### For Example

- 1) Hard = 2
- 2) Easy = 4
- 3) Hard = 2
- 4) Hard = 2
- 5) Very Hard = 1
- 6) Little bit = 3
- 7) Hard = 2

	1/	
<b>Total</b>	= 10	<b>—</b>
10001	$ \mathbf{L}$	



This is your listening survey score





Above 25	No Listening problems	Verbal communication is usually easy. People described as quickly 'Catching on' to explanations. In groups, Indigenous people with scores in this range are often involved in helping others with listening problems understand things. People are usually comfortable in communications with non-Indigenous people. Usually have good social and emotional wellbeing.
21- 25	Minimal Listening problems	May experience some difficulties in noisy environments but cope easily in most situations. May sometimes experience frustration and anxiety.
17-21	Moderate Listening problems	Communication is difficult in many situations where it is noisy, where there are multiple speakers, unfamiliar people or involved in unfamiliar processes. Often experience frustration and stress in these situations. May cope by avoiding some situations where it is difficult to communicate.
13-17	Severe Listening problems	Experience listening difficulties in most situations. Often only comfortable with familiar people and situations. Frequently experience frustration and anxiety during communication. Often cope by avoiding difficult situations. Likely to feel socially excluded and have poor social and emotional wellbeing.
Below 13	Very Severe Listening problems	As with severe. May be quite reliant on others, usually family, to help with communication may.



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### Feel free to contact me



do anything.

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### If You have a score below 21

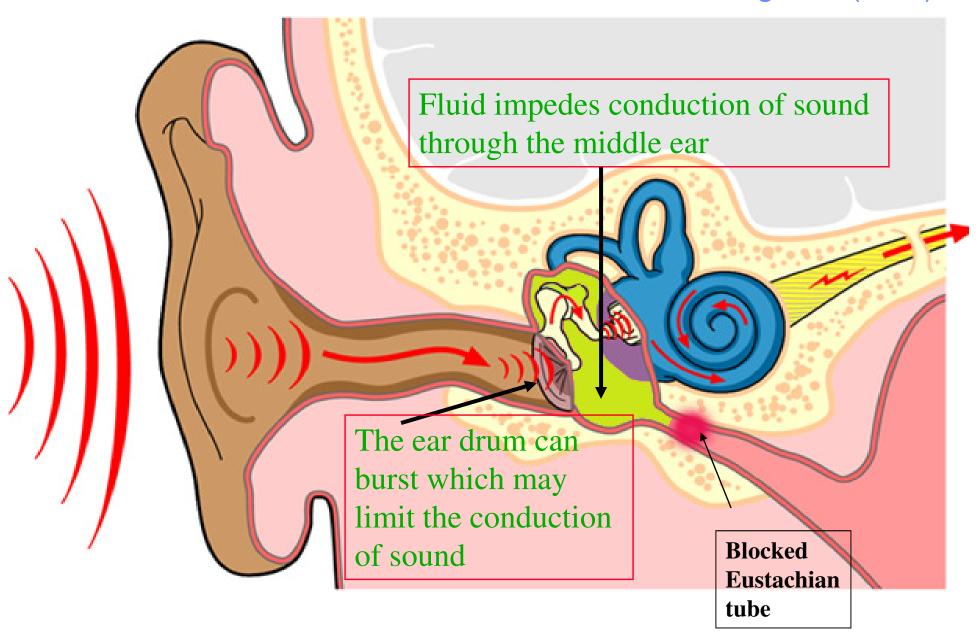
- You have done very well!
- As score under 21 indicates listening problems related to probable hearing loss and/or auditory processing problems.
- Having succeeded in education to become a teacher, despite these listening problems, means you have worked very hard and are probably smarter than your exam results ever showed.
- Having listening problems means that you have insights and personal understanding of children with listening problems greater than most of your peers.
- For those who scored well above 21 which will be most of you

   be very aware that you will need to work at having
   understanding of the experience of children with listening
   problems in class.



- Middle ear disease, 'glue ear', is one of the most common childhood illnesses.
- Fluid in the middle ear prevents sound being 'conducted'.
- This results in Conductive Hearing Loss (CHL)
- Unlike sensorineural hearing loss CHL temporary and usually in the mild to moderate range
- Middle ear disease is a relatively minor health problem but it can have major educational and social consequences.

#### Middle ear infection often leads to conductive hearing loss (CHL)



## How many children have it?

 One third of the children in early childhood classes have an unidentified CHL



 Between 40-90% of Indigenous and Pacific children have an unidentified CHL at any point in time



### A disease of disadvantage

- Most common reason children visit doctors
- But some experience it earlier, longer more often
- The socially and economically disadvantaged
  - Crowded housing
  - Poor nutrition
  - Poor access to medical treatment
  - Possible anatomical predispositions

### Loud noises can be painful

- The middle ear also has three small bones whose function is to help amplify sound passing through the middle ear
- They help protect against loud noise which is otherwise painful by stopping this amplification function
- This sound dampening function often does not work when children have middle ear disease
- So children with CHL can find loud noises painful as well as not hearing well.

# Yulnerable to later hearing loss

- Research is indicating that a history of middle ear disease makes people susceptible to acquiring hearing loss in adulthood.
- There is some evidence that the use of personal stereos can lead to noise induced hearing loss

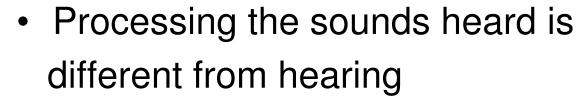
### **Cumulative hearing loss**

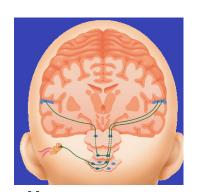
- Although conductive hearing loss is temporary and fluctuating some children who experience persistent middle ear infections experience CHL for long periods during childhood.
- For example on average Aboriginal children experience hearing loss for 2.6 years during childhood compared with an average of 3 months for white children.
- Some white children also experience persistent conductive hearing loss
- This hearing loss can have long term effect

# CHL and auditory processing Moore 2003

- Children with persistent conductive hearing loss are likely to experience difficulties in auditory processing
- For example listening in background noise.
- The cumulative time with hearing loss appears the key factor

## **Auditory processing skills**

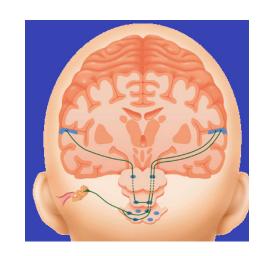




- There are a number of types of auditory processing skills.
- In terms of conductive hearing loss most work has been done on binaural hearing
- Binaural hearing involves the capacity to listen when there is background noise.

### **Auditory Processing Problems**

- A history of otitis media can lead to auditory processing difficulties
- With auditory processing problems a person's hearing may be normal but incoming sounds but are not processed correctly by the brain.
- Children with auditory processing problems have difficulties understanding speech especially when it is noisy.
- 'Temporary' hearing loss may lead to permanent auditory processing problems



# Auditory processing difficulties

## Some signs of auditory processing difficulties include

- Difficulty hearing when it is noisy
- Often needing remarks repeated and asking lots of questions
- Has difficulty following verbal directions or remembering verbal information
- 'Hears' better when watching the speaker
- Like routines and may be upset by change

## How many children have it?

 About 7-10% of children in the general population have Auditory Processing Disorder



 One study found 40% of Indigenous people have signs of auditory processing problems.

## From the teacher's perspective

can't find out easily if child has a hearing loss

If child does have hearing loss this is often considered not 'educationally relevant'

usually limited additional support resources and limited information to guide teachers and schools

## Social effects of listening problems

- There has been very little research carried out in this area.
- But what is known points to listening problems contributing to social disadvantage.
- Social functioning is the basis of education, employment, family life etc

## Hearing loss and disadvantage

- How does hearing loss lead to social and learning problems?
- The obvious way is behaviour problems occur when children do not hear the teacher.
- However, my research suggests it is more complex than this and involves the levels of noise in schools

#### **Schools and Noise**



Conductive hearing loss shapes children's social responses at school, especially when its noisy

#### **Schools Noise**



- Schools are often noisy places because of the talk and activity of many children
- Noise levels range from highest on the playground and in whole school activities through to teacher instigated quiet

### Signal to noise ratio



- How much louder than the background noise is the signal that is being listen to
- A signal-to-noise ratio of +15 dB is recommended in classrooms. This is rarely achieved.

# Those most effected by noise

- Those with less experience with language- children, ESL background
- English speaking children need up to 25dB louder than English speaking adults to get 100% listening accuracy
- Children with hearing loss need louder signal

### **School acoustics**



#### School acoustics is shaped by

- Physical make up of classroom
- Outside noise intrusion
- Social organisation of classroom

### Reverberation



- Reverberation is the degree that sound 'bounces' off hard surfaces or is absorbed by soft surfaces
- Reverberation makes it harder to listen
- Reverberation is reduced by adding acoustical insulation to partitions, doubleglazing windows, and padding interior walls and surfaces with absorptive materials.

### **Noise intrusion**



- External airplane noise has been found to have an adverse effect on concentration (Koszarny, 1978)
- Greater fatigue among adult students with background noise created by fans
- and reading (Green, Pasrernak & Shore, 1982).





- Air conditioner vents near the door, every time the door was opened teaching ceased.
- In library a group instruction area was located near an air conditioning vent.
- One class lunch area outside an air conditioning vent.
- Office with meeting desk under air con vent and open door next to clatter.

## Coping with noise



- What adult English speakers can cope with is not a reasonable standard to judge what children with CHL and/or auditory processing problems can cope with- especially those from a different language/cultural background.
- However it is usually adult English speaking teachers who decide what is an acceptable listening environment in schools.



- Noise in schools is mostly created by the talk of teachers and children
- This area of school acoustics has been little researched.
- How many children, what they are doing and how they are managed are key contributors to background noise.





- Increased stress hormones and blood pressure of children under flight paths
- People less helpful to others
- Increased risk of anxiety and hostile behaviour
- Greatest effects when perceived lack of control

## Key teaching implications

- Levels of background noise that teachers can cope with will be too high for many children.
- Increased noise means decreased capacity of children to listen.
- Teachers need to monitor noise and listening demands on children during day

Increased noise



Decreased capacity to listen



Learning
And
Social problems

## **Ecological validity**

- Psycho-educational assessments conducted one-to-one in a quiet listening environment will often not reflect classroom performance of children with listening difficulties.
- However, these test results often determine access to educational support
- Particularly important with children with listening difficulties to consider validity of results in classroom.



Brakes tested but only driving under 40kmp Child tested only one to one in quiet

Report

# Social and learning outcomes of hearing loss in often noisy schools



### Less talk when its noisy

 Children with CHL talk least when it is noisy

As noise levels With CHI increase verbal interaction of many

children with CHL

decreases

High Noise Low Noise
Low Noise
Low Noise
Low Noise

45% 2%

Most talk

#### Talk less but tease more

- As noise levels increase attempts to engage physically increase
- This often involves teasing



## Teasing can involve



- Taking others things, monopolising class materials and damaging others' work
- Students may prod, poke and even hit others
- This type of teasing is often seen as bullying



#### **Dominating conversations**

Some children with CHL attempt to cope by dominating conversations

- When they talk they often tell, boss or demand. This
  - Minimises listening problems related to hearing loss.
  - Sometimes involves verbally teasing and even bullying others



## **Calling out**



 Some students with CHL often 'call out' in class in response to others', usually the teacher's, <u>loud</u> comments

 Students who are having difficulty participating in quieter conversations with peers may 'call out' in response to louder comments in class Joe get your book



## "Can hear when he wants to"

- Children are often thought to have 'selective hearing' because they communicate better when it is quiet and they are paying attention through face watching.
- They 'hear' worse when there is background noise and they are not getting visual input through face watching.
- Adults can often see this as 'they can hear when he wants to', not understanding the combined effects of background noise and CHL.

## Speech perception

One to one in quiet

Child with CHL, APD, ESL

 In multi speaker noisy environment









## Teacher perspectives



- Naughty
- Defiant
- Inattentive
- Arrogant
- Slow
- unmotivated



Child with CHL, APD, ESL

## When it was quiet at school



The times that it is quiet in class provide the best times for children with listening difficulties to be able to hear what others are saying

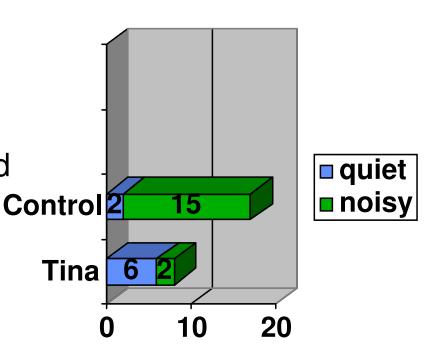
### Talking when quiet



 It is quiet in class because teachers are trying to manage noise levels to 'instruct', or to allow children to work

 Since the low background noise creates the best opportunity for children with CHL to listen

 Many children with CHL take this opportunity to talk when it is quiet.



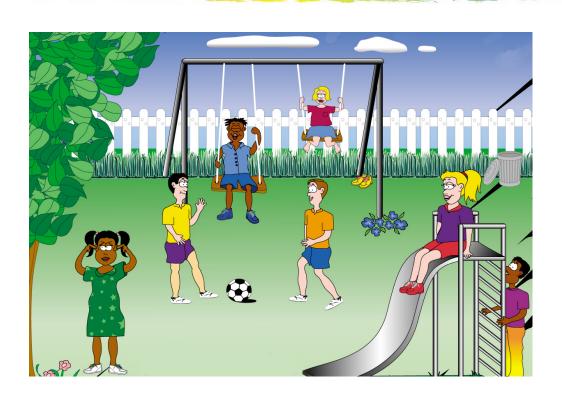
## Restricted social opportunities

There are restricted social opportunities for children with conductive hearing loss and/or auditory processing difficulties

- At the times when children are allowed to talk it is usually too noisy to be able to listen
- At the times it is quiet enough to be able to listen, children are mostly not allowed to talk
- Children are presented with a forced choice between 'break the school rules or become socially isolated at school'

## On the Playground



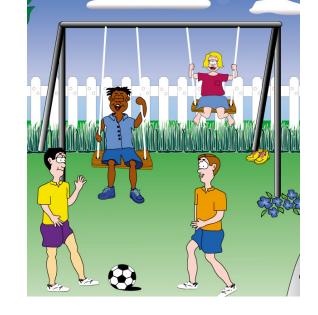


It is assumed that children can socialise freely on the playground. With children with conductive hearing loss or auditory processing problems this is often not true

#### Playground problems



- Children with listening difficulties have problems communicating when it is noisy- around play equipment and in group games
- Having trouble hearing peers creates social difficulties during break times. Teasing and attempts to dominate can lead to fights.



 Some students may seek the quietest place so as to be able to talk.

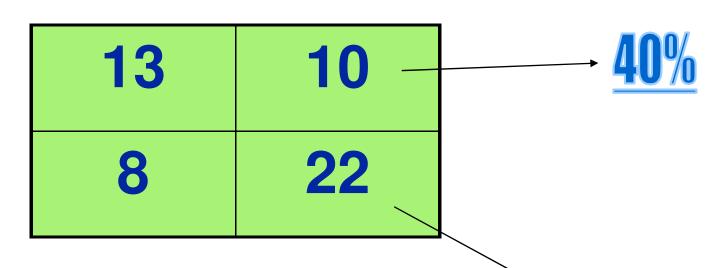
## Sporting abilities and CHL

average or below

above average

With CHL

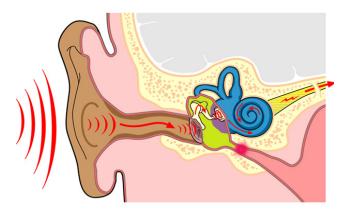
No CHL





## How CHL impacts on sport

- Infection impacts on general health
- Effect on communication, especially during team sports
- middle ear disease influences motor abilities.
- Poor social interaction during training, limits performance.





- In understanding coping it is important to consider what children do when they find it difficult to listen
- Children often use visual and social coping strategies

## Visual coping strategies

With restricted capacity to cope with verbal instructions, children with listening problems often rely on visual coping strategies. However, this can also result in responses that are seen as behaviour problems.

#### **Face watching**

- -
  - Watching people's faces helps give added cues in conversation
  - This can help in one-to-one conversations.
  - Children often need one-to-one help to cope with classroom instruction.
  - This can mean that children's ability to cope and learn is related to the size of the class and the number of other children with listening needs.



## Face watching does not work

- When there are too many faces to watch
- In groups face watching leads to focusing on one person and missing cues for turn taking
- This can result in children ignoring or interrupting others, or withdrawing socially.
- Teachers often say of children with CHL that they are good one to one but difficult in groups.
- Face watching is involved in cultural masking of hearing loss.

## Looking around

- In groups children with CHL often look around more than others
- Looking around helps to observe what others are doing and monitor what is happening in class



- Many children with CHL look around more in class
- Looking around is often seen as being inattentive

#### Wandering

- Wandering can enable observation of and talking to others or avoiding work that is not understood.
- Observation helps to see what others are doing
- Talking to others allows verbal instructions to be repeated or rephrased
- Children with listening problems are often reluctant to try something, until they have listened to others.



## Visual coping and behaviour

- The visual coping strategies used by many children with listening problems can be used to support learning or
- They may be seen as behaviour problems.
- Wandering is seen as disruptive and children may be considered hyperactive
- Looking around in class can be seen as being distracted and inattentive
- Children can be seen as socially immature or disruptive because face watching leads them to Ignore or interrupt others in group situations

Response	Purpose of	Consequences
	response	of response

Dominating	Minimises needing to	Leads to social
conversations	listen	problems and
		rejection by peers
Speaking when	Takes opportunity to	Ignored or
quiet in class	communicate verbally	rejected by peers,
	when noise level lowest.	disciplined by
		teachers.
Teasing when	Attempts to engage	Antagonizes peers
noisy in class	socially when verbal	and disciplined by /
	communication difficult	teachers.
Calling out	Responds to the verbal	Seen as behaviour
	signal in class that is	problem
	easiest to hear.	
Watching, looking	Uses visual observation	Seen as socially
around and	to compensate for	immature,
wandering	diminished auditory input	inattentive, or
		hyperactive





## Direct social effects of CHL

- Avoid situations or participating where may fail
- Frustration about difficulties in understanding others can result in aggression
- Misunderstanding what others say can lead to conflict
- Sensitivity to feeling excluded can prompt volatile responses especially to being teased.

## Indirect effects on others

- Demands on teachers to provide one to one help or to manage disruptive behaviour
- Distraction of other students or demands on them for peer support.
- The proportion of a class group with listening problems can influence the learning of all in class.

#### Birds of a feather



- Because children with CHL have similar communicative needs they often gravitate to each other- for example in play fighting and talking when its quiet.
- They may form groups that are 'bad together'

#### **Effects on families**



#### Parents of children with CHL often

- Interact less verbally and often this is simply 'directing'
- Feel less emotionally connected with children with CHL
- Feel less adequate in their parenting
- May be criticized by others for poor parenting

## **Behaviour problems**

-

It is easy now to see why
90% of children with behaviour
problems in early childhood classes had
conductive hearing loss or middle ear
problems in five Melbourne schools
(Moore and Best 1987).





- The quality of the interpersonal relations that children establish with their peers during their school years is linked to later success outside school.
- Problems in relating to peers in childhood have been found to be associated with psychological difficulties during adolescence
- The single best childhood predictor of adult adaptation is the adequacy with which the child gets along with other children.

#### Research on adult anti social behaviour



- Early evidence of subtle cognitive deficits, difficult temperament or hyperactivity <u>listening problems!</u>
- Interaction of neuro-cognitive deficits with
  - poor parenting, disrupted family bonds and poverty
  - Poor relations with peers and teachers

Research

### **Early intervention**

- Neuro developmental deficits and absence of compensatory social environment lead to later problems.
- High levels of hearing loss among prisoners
- Important to intervene early to minimize early learning and social problems developing into life long antisocial behaviour.

Research

# Children's coping strategies

### Visual strategies



- Observing others to know what to do
- Visually monitoring social dynamics
- Face watching one to one

### Routines and change

- -
  - Visual observation helps develop acute awareness of routines and rules
    - This awareness
       helps predict what to expect at school
    - Children may tell on other children
  - Children can have difficulty coping with change of routines



### **Special friends**



- Some children have a special friend who helps them in class
  - If their special friend is absent it is more difficult for them to cope
  - They may get into trouble for talking to their special friend



## How children think and feel

The experiences children have shape their beliefs about themselves and others. They may think they are dumb and that others are picking on them or don't like them.



### Children think they are dumb

- Classroom listening difficulties and watching others means children are constantly comparing their own performance with that of others
- Not understanding why they are having difficulty coping with verbal instruction, they often think that they must be 'dumb'



### Children's Self Concept



Difficulties communicating verbally

Classroom responses attempting to remain socially included

Antagonistic peer response

Teacher response that manages behaviour by shaming, confronting – isolating

Experience of communication failure- <u>I'm dumb</u>

Experience of social rejection- other kids don't like me

Negative self concept

Experience of public shame and social isolation- I'm bad.



### **Anxious and isolated**



Not all students with listening problems have behaviour problems.

Some comply with school expectations, are socially isolated and often anxious

### Children who comply



# Children with CHL who comply with school rules

- May try hard, even too hard, to please teachers
- May avoid contact with teachers
- May be isolated
- May have tantrums at home because of the stress experienced at school.

# Who has hearing loss?

# Identification of CHL is difficult

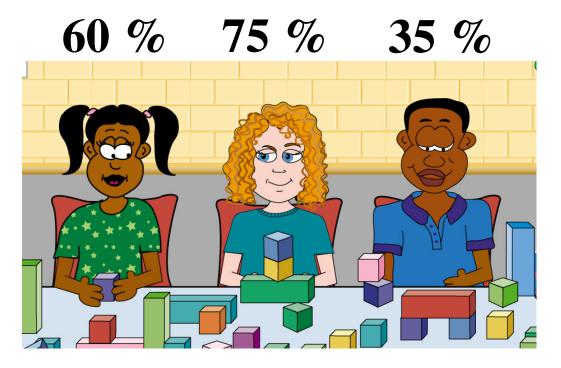
- Conductive hearing loss fluctuates
- Formal testing is slow, individual, expensive and reliant on health professionals
- Cross cultural 'masking' obscures teacher identification.



Speech reception carried out at school by teachers can help identify with CHL.

### **Cross-cultural Masking**

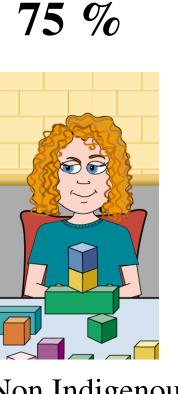
Amount of eye contact during one-to-one conversation with teacher



Who has a hearing loss?

## Eye contact during one-toone conversation









# Cross cultural masking of CHL

 Teachers using 'attentiveness' to identify children who may have hearing loss <u>liable to</u> <u>mistakenly pick Indigenous children with no</u> CHL



- The amount of eye contact of Indigenous/Pacific children with CHL is similar to non indigenous children without CHL
- Indigenous/ Pacific children with no CHL may maintain eye contact half as much as Indigenous children with CHL and non Indigenous children with ho CHL.





# There is a need for classroom based identification strategies





### Speech reception



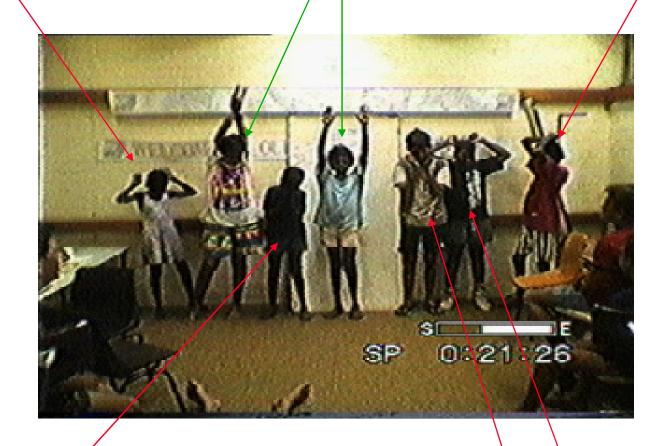
- Group and individual speech reception tests if children can hear instructions said in a quiet voice
- Instructions are given to a group of children first in a loud voice- to make sure they have the language requiredthen in a quiet voice.
- It is important to have some children in the group with normal hearing.

### "Put your hands in the air"

unsure what to do

can follow instructions

watching others

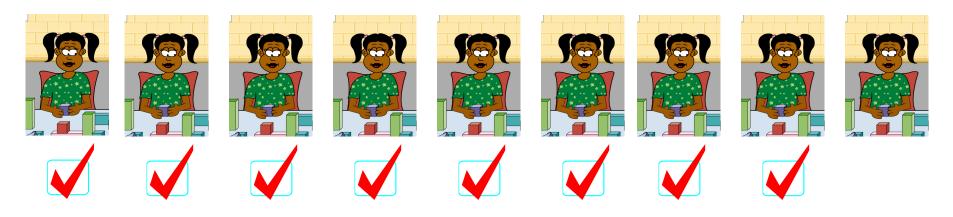


not following direction

unsure what to do

### **'Blind Man Simon Says'**

 When compared with formal hearing tests This screening identified 91% of children with bilateral conductive hearing loss

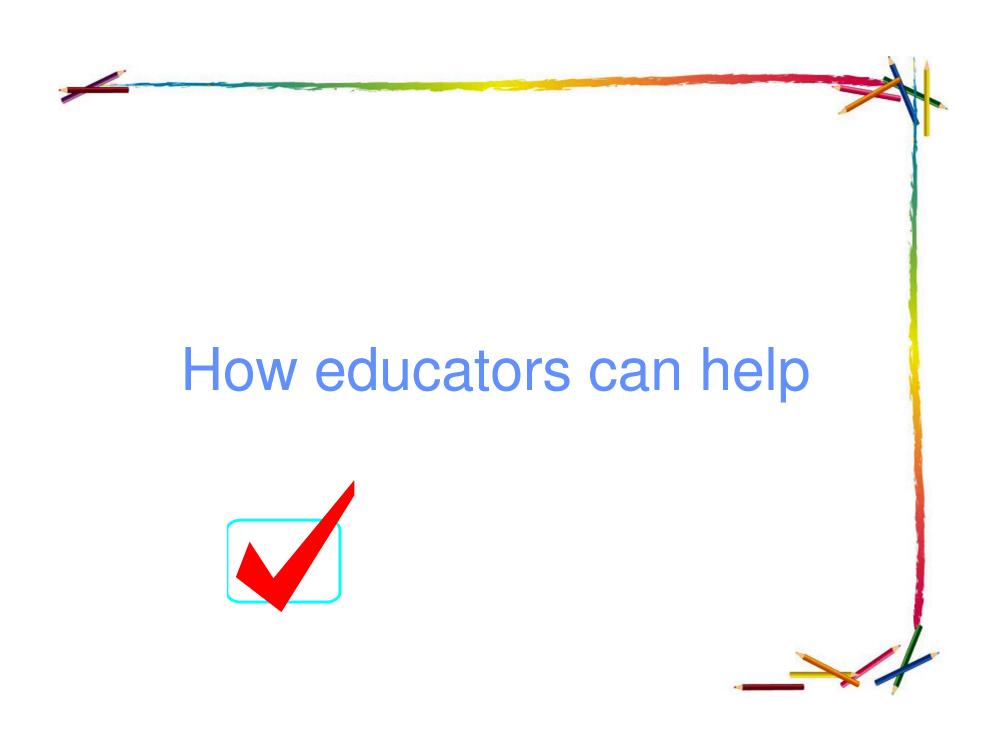


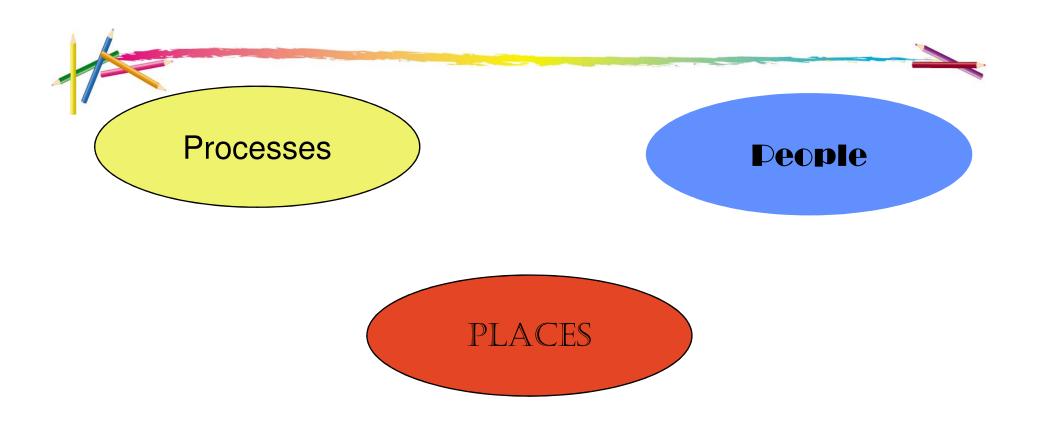
### **Discussion point**



- Consider children who comply but often don't seem to get it
- Are often dependent on friends
- Who make more eye contact
- Who may try to get more one to one help or contact

Does hearing loss play a part?





Three areas to intervene

Two stage learning

Avoiding listening overload

Topic changes

Visual cues

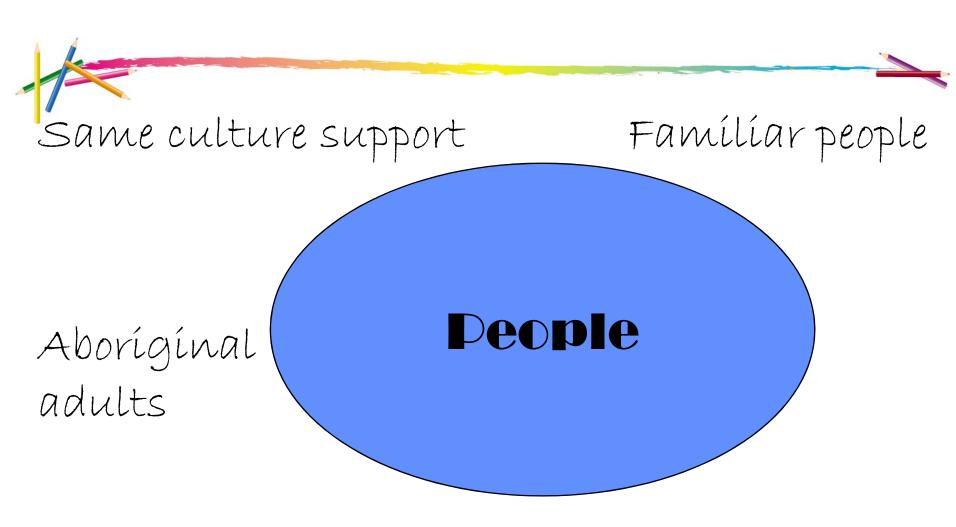
Managing change

**Processes** 

Watch your language

Build relationships

Make things predictable



Special friends

Relationships



Noise

Sound field amplification

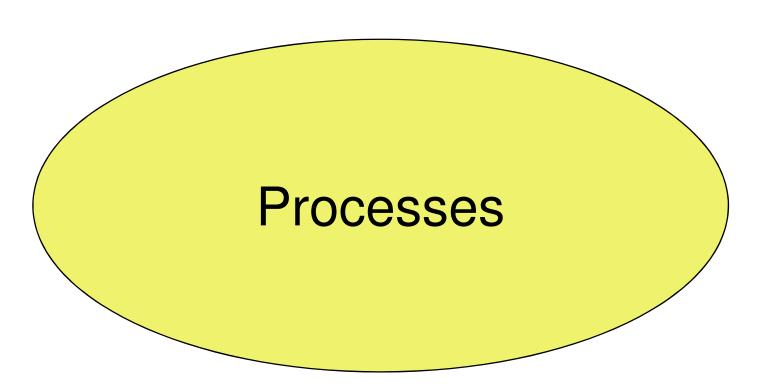
Distance



Visual distractions

Acoustics

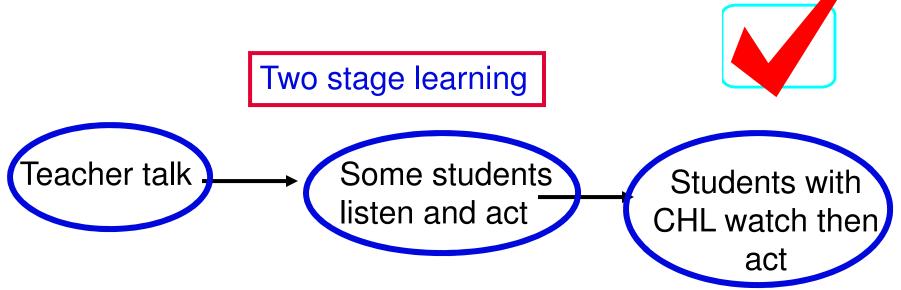




### **Teaching strategies**



- Say and show where possible
- Say things simply and repeatedly
- Don't expect everyone doing same thing at same time
- Support two stage learning



### Children tire quickly



- It is very hard work for children with listening difficulties to listen for extended periods
- They will tire quickly, may tune out or seek to entertain themselves
- Alternate activities that place demands on listening with ones that do not

avoid listening overload



### Hands on learning



- School learning is often centred around learning from talk
- The constant failure to understand can erode children's confidence
- Activities where students can engage in 'hands on tasks' give them a chance to show their capability to others, and themselves!

## One-to-one communication

- Get close
- Speak quietly
- Speak privately



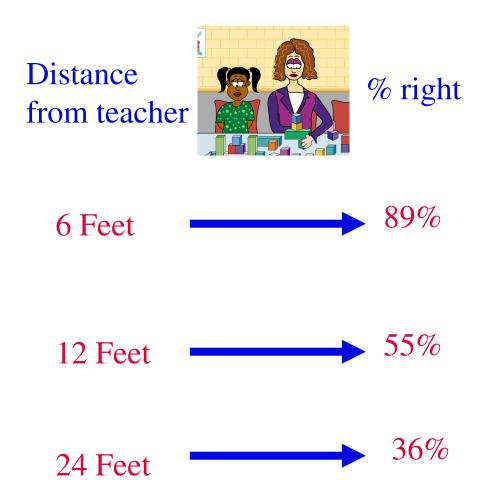


### Get close



 When children with normal hearing in a quiet classroom were were asked to repeat sentences scores diminished, the greater the distance from the teacher

**Edwards 1997** 



### Use context cues

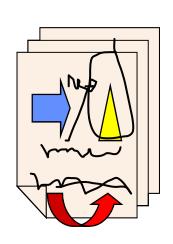


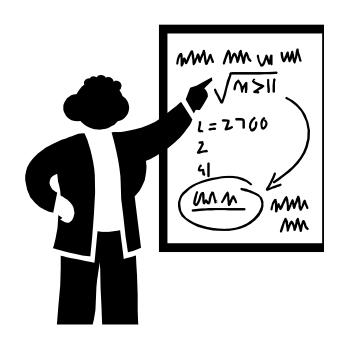
- Understanding of what is presented verbally will be helped by having as many visual cues as possible
- Pictures and 3d objects help to create a context that makes words more understandable
- Make instruction as <u>visually rich</u> as possible

### Visual cues



- Use visual cues to help explain words
- Draw as well as talk





### Watching



- Allow child to position for best view in different activities- sometimes this may be close up, at other times further away to see what other children are doing.
- Set a period of 'watching time' before children start an activity
- Organise two stage learning activities





### **Topic changes**



 Identify clearly when you have made a topic change- it is often difficult for people with listening difficulties to know when the topic has changed.

#### Layout and position





- It is important for child to be close to speaker with the opportunity to see
- Students may also need to be able to observe what peers do
- A U shape design supports watching strategies and minimizes the need to wander



#### Small group instruction

- Seated close
- Good visual observation opportunities
- Speaking quietly
- Insisting on quiet before speaking



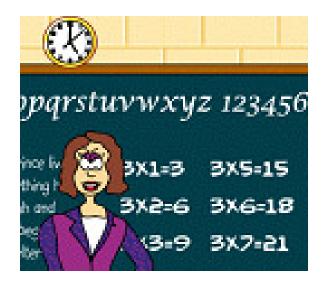


- Only 'teacher focussed' visual observation
- Higher background noise

#### Predictable experiences

- Establish and maintain routines
- Tell and show what is going to happen
- Inform children about any changes to routine
- Allow students to observe before doing





## Keep developing language skills

- Work carried out in WA showed that teachers who were effective with Aboriginal children with conductive hearing loss
  - Kept teaching phonological awareness beyond the first few years of schooling
  - Helped make explicit how language works in different situations

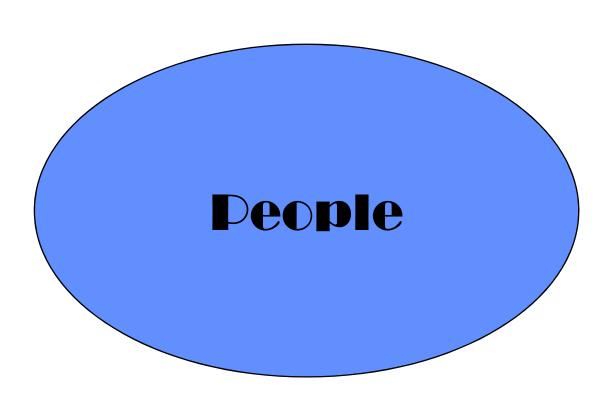
#### **Transparency**

- Make processes transparent and observable.
- Be verbally explicit.
- Prepare for what to expect in disciplinary processes
- Validate that process is impersonal- talk to others about their experiences, or tell of others.
- Enable seeing others reactions- coach others for emotion is child socially mature.
- Teacher transparency may also be important-
  - detachment = dislike, emotion=understanding

#### Change

- Because of reliance on routine change can be difficult
- Give warning of change
- Tell and show how things will be different
- Give a chance to observe before new demands are placed on children with listening difficulties





### Relationships critical

- Teachers and children relate best to
  - people they understand
  - Similar cultural background
  - Similar socio economic background
  - Shared language code
  - Shared expectations of behaviour
  - Shared experiences- positive relationship

#### **Familiarity**



- Familiarity and knowledge helps to fill in the gaps created by listening difficulties.
- It is easier to un understand
  - a known person
  - talking about familiar topic
  - within a known process
  - in a quiet environment.

#### **Build relationships**



- Established relationships
  - makes interpretation of non verbal cues more accurate
  - Knowing your motivations, thinking and feelings provide a context that helps in speech perception
  - Children are more comfortable to ask for clarification

### How to build relationships

- Spend time together
- Get to know student
- Talk to family about communications they use
- Talk about yourself
- Be transparent- show your feelings and thoughts

#### Peer support



- Be aware of and support role of 'special friend'.
- Foster classroom layout and activities that enable peer support.
- Keep class groups small with students having a range of abilities.

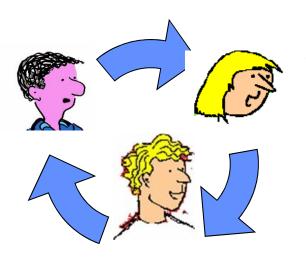
Be aware of background noise possibly inhibiting group

participation.



#### The revolving door

 The constant staff changes in mainstream agencies working with Aboriginal organizations limit the development of strong relationships helpful for communication with Aboriginal people with listening problems.





#### **Streaming**



- Streaming on the basis of achievement or behaviour will congregate children with listening problems in the lower groups
- Streaming groups on ability level makes peer observation difficult and
- May contribute to more behaviour and learning problems

#### **Understand when**

- Children are proactive in asking for help from adults or peers
- Gain positive response to asking for help
- Social skills and ability to connect with peers and adults shape success in gaining help

#### Getting help



- Student does not seek help
  - Not used to seeking help
  - Been blamed for not listening in past
  - Afraid of being judged by seeking help
- Adults or peers do not provide help
  - Size of class and level of demands
  - How not understanding seen- eg arrogance





#### Speech perception

- Speech perception is harder for those with listening difficulties
  - When it is noisy
  - When there are multiple speakers
  - When listening to a less familiar language



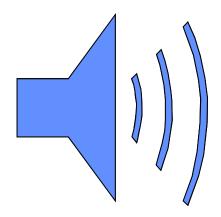


### Speech perception misunderstood

- Not understanding what affects speech perception leads people to think those with listening difficulties are
  - lazy, unmotivated, arrogant or have limited ability
- Leads people with listening difficulties to think about themselves
  - others are smarter than me because they can understand talk when I can't
  - Others are excluding me on purpose by talking quietly

#### **Amplification**





- Amplifying the speaker's voice over background noise makes speech perception easier.
- Especially for those with listening difficulties and/or from ESL background.
- In schools speakers in class found to increase Aboriginal children's capacity to learn from white teachers by 30%

#### Improve class acoustics







- Wall coverings and bookshelves
- Use carpet
  - If carpet not possible place tennis balls on chair legs
- Keep class activity away from noise intrusion
  - Air conditioning or heating vents



#### **Behaviour problems**

 Helping children achieve social needs and cope with instructional demands is the best way to prevent behaviour problems

#### This means

- Understanding how children's responses are related to listening difficulties
  - Being aware of and managing noise levels
  - Organise activities so as to provide children
     with communicative opportunities
    - Make sure children understand what to do

#### Behaviour profile



#### Children with hearing loss often

- Have low self confidence and feel they are 'dumb'
- Are disruptive when unable to cope with verbal communication.
- Use avoidance strategies when unsure of what to do or fear they may fail.
- May develop a 'teasing' social style that makes them unpopular with peers.
- Are often sensitive to anything that makes them feel shamed or socially excluded

# Solving behaviour problems

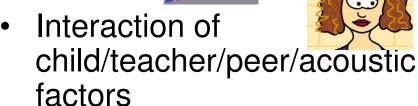
- Social and behaviour problems can often be solved by
  - understanding children's listening difficulties and
  - Using teaching and communication strategies that help children understand what to do,
  - Help children feel included and build their confidence.
  - Social exclusion should be as a last resort and public shaming not at all.

### Thinking about class problems



- Individual deficit
- Diagnose
  - adhd/odd
  - Low literacy
- Change the child





 Change environment/ communication/teaching

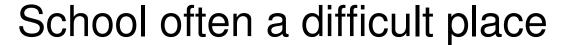
**Medical model** 

Ecological model



- Often problems related to hearing loss and other issues
- Limited family support parents overstretched, limited resources, parents social and emotional issues.
- Large noisy classrooms

#### Walk with their ears



- Words often poorly understood
- Difficulties participating in groups
- Difficulties completing work
- Social difficulties in groups
- May suspect that difficulties experienced are others intentwhispering, teacher's unfair

### In normal school processes

- Social exclusion and/or rejection
  - Kids pick on, don't like me
- Academic failure
  - Feel dumb and judged by others
- Listening burnout
  - Stressed and emotional
- Confusion and anxiety

#### Behaviour management



- Social responses will have become a habitual social style for some children- especially older children
  - Use strategies that socially isolate as a last resort
  - Use opportunities for social contact in quiet environments to develop relationships and as reward for acceptable behaviour
  - Help children to understand their communicative needs

#### **Case study Alex**



- PROBLEMS-Teasing, talking bulling, completing little work
- BACKGROUND-of persistent CHL
- STRATEGIES- Awareness, repeat, 1 to 1, timed wandering, managing noise
- TEACHER OUTCOMES- behaviour, engagement, stress, liking
- STUDENT- go out to play, finish work, no communication book, more friends.

# Experience things differently

- Place greater significance on non-verbal communication- how what is said looks
  - Congruent verbal and visual
  - Being able to see how it is said
- Difficulties understanding what have not observed
- Miss verbal problem solving cues
- Have difficulty understanding others perspectives

### Non observable processes

May be hard to understand.

- May misinterpret what happens behind the scenes.
- Tend to view unobservable processes as potentially unfair and personalized.
- Difficulties in accepting consequences of their behaviour if can't observe effect on others.
- Others responses judged on looks not words-"she says she is upset but she is lying"

#### **Transparency**

- Make processes transparent and observablesee events not told about them.
- Be verbally explicit as may miss subtlyconviction registered?
- Prepare for what to expect in disciplinary processes
- Validate that process is impersonal- talk to others about their experiences, or tell of others.
- Enable seeing others reactions- coach others for emotion is child socially mature.
- Teacher transparency may also be important-
  - detachment = dislike, emotion=understanding

#### **Bullying**



- Attempts to control or distract may result in bullying others
- Those with 'antisocial responses' more likely to bully
- Those who anxious and isolated may be those bullied- APD

## Familiarity as coping strategy

- Familiarity and knowledge helps to fill in the gaps created by listening difficulties.
- It is easier to un understand
  - a known person
  - talking about familiar topic
  - within a known process
  - in a quiet environment.
- Understanding this can help know when problems will arise and know how to minimise them.

#### 3 P risk assessment



Consider if behaviour is related to risk factors related to listening.

- are <u>person</u>(s) communicating with known?
- Is the <u>place</u> problem arises known and/or noisy?
- Is the <u>process</u> or task familiar, what are listening demands?

#### Your case study

- Consider behavior/learning difficulties of student you suspect has listening problems
- Which people does he communicate with best and worst? Consider why.
- Are there any places where problems are most or least evident? Consider why.
- What tasks or processes are problems most or least evident? Consider why
- What interventions can help minimise or mange their behaviour difficulties?

#### **Outcomes of 3P**



- People who are unfamiliar and/or provide least visual cues- relief teachers
- processes that unfamiliar and/or high listening demands-excursions, LOTE
- Places with high background noiseplayground
- Compounded risk. Relief teacher on lunch duty

There is oultine of 3P risk assessment in ear troubles kit.

#### Working at it



- Recurrent negative experiences foster cognitive and social styles that will persistthe older the child and more negative experiences, the more established the style.
- Changing problem generating factors may not immediately change behaviour
- Child needs to have exposure to new skills, risk making change and have it work
- Problems often also related to other factors that also need to be addressed



- Listening problems are one important piece of the puzzle of many children's learning and social problems.
- Understanding contribution provides a better map of the problem that
  - provide new intervention strategies
  - help change teacher attitudes
  - often the long term problem is a dynamic product the child's response, others
     response to this and the child's reaction.

#### Some examples



- Difficulties listening lead to being distracted
- Punished for being inattentive/defiant
- Escalate distraction and develop long term 'resistance' to compliance
- Anti social behaviour

- Difficulties listening lead to being seen as dumb and not confident
- Become very cautious about public mistakes.
- Child anxious and wont take risks

Changing what you do can change the interaction and outcome

## Less problems when

- Children are proactive in asking for help from adults or peers
- Gain positive response to asking for help
- Social skills and ability to connect with peers and adults shape success in gaining help

#### Getting help



- Student does not seek help
  - Not used to seeking help
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### Relationships critical

- Teachers and children relate best to
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  - Shared expectations of behaviour
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#### Listening problems may

- Co exist with and contribute to symptoms of ADHD, dyslexia, aspergers syndrome, anxiety problems, antisocial behaviour, autism and other learning problems
- May be mistakenly be diagnosed as ADHD, aspergers syndrome.
- With genetic APD may be a constellation of interacting problems that contribute to family dysfunction.

#### Case study John

- Diagnosed ADHD/ODD also undiagnosed APD and had school support- yr 8
- Family history APD- father dyslexic (judged as slow and dumb), brother ADD passive, sister developmentally delayed, mother no APD-but history sexual abuse
- Mother managed family, but felt a 'bad parent'- suicide attempt felt 'parenting failure'
- School behaviour problems- most on playground (unsupported), also if lost plot of what happening at beginning of lesson.
- Intervention helped parents understand, helped school plan- consider noise, teacher style (noise, routine), target support areas

## **Quiet kids and parents**

#### The quiet and compliant

Children with listening problems who are quiet and compliant can be easily overlooked

- Observe how children interact when allowed to- i.e. when it is noisy
- Talk to parents to find out how children socialise outside school and affected by school.

#### What to do



- Be especially aware of avoidance as a coping strategy
- Build confidence- look for strengths
- Provide these children more opportunities to socialise one-to-one in quiet environments
- Give high profile jobs that are within their capacity- but make sure they are well trained in how to do these
- Don't forget them in class



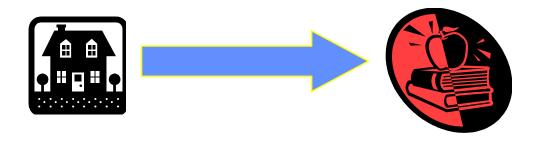
#### Minimising anxiety

- Be aware that these children may be anxious in many situations
- Help them to understand what is happening in different situations
- Try to find out what they think is happening and clarify any misunderstandings
- Talk to parents regularly- get feedback
- Consider a home communication book

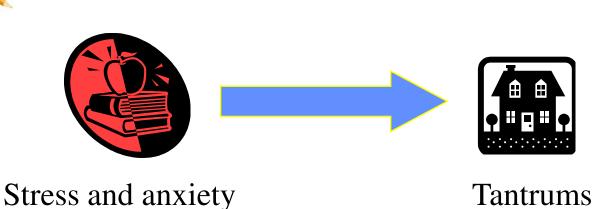


## School stress= home problems

- Common for teachers to see home life impacting on school behaviour
- But school can also impact at home
- Demands and stress of school can mean children with listening difficulties are exhausted and emotional at home



#### School helping home



- Common for children who stressed and anxious (often quietly) at school to have tantrums at home after a hard day.
- Key to resolution is reducing stress and anxiety experienced at school



-

Be aware of these children's vulnerability at school and outside school to

- teasing,
- bullying and
- even sexual abuse

#### **Work with parents**

- Parents are often not aware of social effects of children's hearing loss/listening
- Work with parents to get medical treatment if needed
- Explain to parents and refer them to ear troubles materials for parents.
- Learn from parents what works at home and try to use this at school
- Be aware of parent sensitivity, guilt and blaming





- May feel less connected to their child
- Verbal interaction less and more directional
- Feel less competent as parent
- More likely than other parents to be stressed and depressed
- Often blamed by others- school, family, strangers
- Interaction between 'maternal malaise' and negative child outcomes

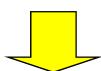
Parent/child interaction

Child's listening related responses

Parent stressed and depressed

Less support for child

Parent



Child copes less well

#### **Attitudes**

50-70% Aboriginal adults with hearing loss

€ ?

Difficulties understanding



Blah, blah



Talk only communication skills



See as limited capacity or motivation

See judgments and uncomfortable asking for clarification





Communication problems

# Collaborate with health systems

- Work with health staff to encourage parents to have middle ear disease treated
- Talk to health staff about this materialthey know about health aspects of middle ear disease but not the social aspects

#### Ear Troubles Tele Training



#### This training requires

- A facilitator to organise group
- Venue with broadband access, data projector and speaker phone

Online audio/visual presentation with phone link-up during discussion and questions

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