EWING FOUNDATION
for deaf children

How do we gain evidence on children's listening skills?

Evidence can be gained through:

- Direct observation by specialist staff: ToD / audiologist; especially useful for complex needs; completing profiles (a "tick box" approach should be avoided)
- Adult report – especially for young children
- Self-report by child; not always accurate and needs a degree of sophistication on the part of the child
- Specific Testing of a range of skills including:
    1. Detection
    2. Discrimination
    3. Identification
    4. Comprehension
    5. Discourse tracking
    6. Auditory memory
    7. Other aspects such as localisation, speech discrimination in the presence of background noise etc

    Evidence should seek to describe a child's ability to detect / discriminate / identify:

- environmental sounds
- speech sounds both in isolation and in running speech;
- speech in quiet, in noise, at a distance, with a degraded signal e.g. telephone

Professionals need to consider how the information will be recorded, collated and reported

Assessments of listening have developed in an "ad-hoc" way compared to language assessments. Some were developed to help adults evaluate their listening experience; some to help education professionals identify children with hearing difficulties; some to test specific skills; some as part of a listening programme / intervention (e.g. Kidstrax) others to track progress within a developmental framework e.g. Monitoring Protocol; developmental profiles

Some Cochlear Implant companies have collated tests & assessments being used by CI centres etc in order to use them to demonstrate benefit and progress in the early years of implantations to quality assure benefit and value for money. Their website often provide a wealth of information on the development and assessment of listening skills.

Speech Discrimination Tests

These are the most widely used test by qualified teachers of the deaf. What are the benefits?

The results from these tests:

Can help deaf children and young people understand equipment, hearing loss and the management of both; their reliance on lip-reading; the impact of acoustic conditions including recognising the effects of the Signal-to-Noise ratio and the potential benefit of using a personal radio aid.

Can demonstrate the above for professionals and adults as well: also, the difference when listening with / without hearing aids; evaluating the benefit of personal radio aid use; / how well children cope in noise and, perhaps, reliance on lipreading. NB Very cautious interpretation is required as these tests are designed to be tests of audition not lipreadability. Always seek guidance from the literature about the use of Speech discrimination tests.

Can justify: provision of radio aid; expenditure; help identify and secure appropriate support for the needs of deaf children and young people; the need for classroom management of background speech noise; the improvement of room acoustics.

A Word of Warning!

Professionals need to remember why and how speech discrimination tests were developed.

They were:

- Developed to support clinical evaluation of hearing loss
- Developed as a complement to Pure Tone Audiometry
- Designed to be used with a normative curve as a baseline in clinical practice
- Designed to evaluate listening NOT lip-reading
- Originally used with far more lists to calculate the score – not just one or two lists; Professionals should consider minimal differences required (see test details).

Responses may be affected by various factors including attention and acoustic conditions as they are rarely used by qualified teachers of the deaf in clinical settings. Compromise is sometimes necessary, especially with young children but this should always be taken account of when interpreting and reporting results.

If we use the tests in different ways than intended, we need to be cautious about interpreting results.