

NBHSW

**Task-and-Finish Group on Outcome
Measures in Language and Communication
for
Early-Identified Children**

Report

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1. Background

Newborn Hearing Screening Wales has a rigorous internal system of Quality Assurance inherent in its management and operational structures. The performance of the programme is further scrutinised by a Quality Advisory Group made up of a broad range of stakeholders. However, current standards focus on process measures which monitor the programme in operation from screening through to assessment, diagnosis of hearing loss and hearing aid fitting where appropriate.

The primary purpose of newborn hearing screening, to improve language and communication outcomes for early-identified children, has not been evaluated. It was against this background that a task-and-finish group was set up to provide a focus for multi-disciplinary discussion and guidance on ways of measuring the effectiveness of early identification before the child reaches school age.

2. Composition of the task-and-finish group.

The group consisted of

Meg Shepherd (Chair), Divisional Co-ordinator NBHSW, North Wales

Amanda Roberts, Divisional Co-ordinator NBHSW, South Wales

Gwen Carr, Deputy Director Newborn Hearing Screening England (NHSP)

Linda Davies, Advisory Teacher of the Deaf, Cardiff

Margaret Denholm, Sensory Impairment Manager, Carmarthenshire

Sarah Ellis, Senior Lecturer, Speech and Language Therapy, UWIC

Sue Lewis, Course Director Mandatory Qualification for Teachers of the Hearing Impaired, Mary Hare Grammar School and University of Newport

The group was chaired and led by senior members of NBHSW, with Gwen Carr, Deputy Director for the Newborn Hearing Screening Programme in England, bringing valuable experience of a neighbouring national programme to the discussion. The membership also reflected major stakeholders within Education and Health. The Course Director for the mandatory Teacher of the Deaf qualification in Wales provided key background on the training of the specialist teachers who will be working with early-identified children. Parental views were sought during the option appraisal process via groups in North and South Wales. Consultation with the voluntary sector on the final report will take place through the NBHSW Quality Assurance Group.

3. Remit of the group.

The group's task was as follows:

- 1) To look at possible outcome measures to assess the impact of early identification in the language and communication domains before the child enters school.
- 2) To consider the availability and accessibility of data both in the Health and Education sectors
- 3) To set out an action plan for developing a measure for NBHSW and advise on timescales

4. Timetable of meetings.

The group met 3 times between November 2007 and October 2008 (30th November 2007, 18th April 08, 3rd October 08).

Between meetings, the members of the group were in frequent e-mail contact to discuss progress and resolve issues arising.

5. Outline of discussions and issues identified.

5.1 Assessment tools

The group considered tools in use in the 0-5 years age-range. There is a need for a reliable, adequate assessment procedure to benchmark children linguistically and to flag up any early language problems when children begin to access Education.

The aim of early identification and the hypothesis that early hearing-aid fitting and support will facilitate age-appropriate language create a requirement for direct comparison between hearing and hearing-impaired children using tools normed on the hearing population.

These norms cover a range of achievement levels. A factor which might create a greater skew, however, in the hearing-impaired group is the higher proportion of children with additional needs. Collecting data over time would allow meaningful comparison between group profiles. Early identification might have an unexpected bonus in bringing to earlier attention children with specific language impairments, where early aiding and support have not prevented language problems from developing.

The group queried whether championing a range of tools might be an alternative approach, rather than looking for one tool to be used by all. Guidelines describing the tools available and outlining the information they captured and how they compared with others could be produced. This would mean that services potentially could continue using their current materials, without the need to purchase new ones or undertake training. However, the limitations of this in terms of collecting a uniform data-set of deaf children's language were felt to outweigh the time and financial savings.

An assessment tool would need to map how close to age-appropriate language deaf children were. There should also be an opportunity to reflect the range of other factors impacting on language achievement, such as additional needs, ethnicity and English as a second language.

Some members felt there was a need to measure the whole range of language functioning – comprehension, expressive language, auditory memory, cognitive development, pragmatics - whilst others felt that a sampling might be more workable. All felt that there was a need to continue to collect data beyond the Early Entitlement and Nursery stages on into statutory school-age.

One possible framework for doing this might be to take the children identified in the first full year of screening and look at them again when they were 7 years old, assessing them on a literacy measure, for example. This would provide a point of comparison for successive cohorts of early-identified children similarly assessed at 7 years of age.

Another way would be to look at Educational outcomes in the population of hearing impaired children at a given time and compare them with same-age data for the whole population.

The group felt there were key 'transition' stages at which progress should be measured: Nursery, age 5, age 7, Junior, Secondary. Timing would need to be tight

and agreed nationally. At secondary school, the chosen measure might be exam results.

The group considered the issue of the lack of retrospective data when measuring the performance of early-identified children. Some historical data would be held by individual teachers and/or services, but this information would not have national extension and might be difficult to access.

5.2 All-Wales measurement tools

5.2.1 Standardised measures

There is a need for high-quality standardised data, with assessment regularised across Local Education Authorities (LEAs) in Wales. This would provide a transparent indicator of deaf children's performance across Wales. However, there is currently no single standardised measure in use.

5.2.2 Baseline Assessment within the National Curriculum framework.

Baseline assessment is taking place across Wales, but results are not reported at a national level.

5.2.3 Monitoring Protocol for Children with a Hearing Impairment

This tool and the corresponding tools for children with Downs Syndrome and with a visual impairment are being used to monitor progress in the 0-3 years group in England. Work is about to begin on translating the Monitoring Protocol for Children with a Hearing Impairment into Welsh and on developing a programme for rolling-out training on the tools.

5.2.4 Questionnaire on assessment materials for pupils with a hearing impairment

Margaret Denholm had completed a survey in December 2007 of teachers of the deaf in Wales to gather information on the recording and assessment of language and communication across the age range (see Appendix 1). Her findings, which are reported here with permission, reveal a wide range and diversity with no single tool favoured over others. Moreover, very few tools with a specific 3-years-or-under focus were regularly utilised.

5.3 Link between data on language and communication and the NBHSW database.

Data on language and communication outcomes would complement the data which NBHSW is already collecting on gestational age, date of decision to aid, age at hearing-aid fitting, date of cochlear implantation, type and level of hearing loss and significant risk-factors. Information is already available through this database on children with additional needs. The group felt there might be benefit in extending the information gathered to record children whose first language is not English.

6.Actions arising from meetings.

- January 2008 to February 2008 group to look at Family Participation Rating Scale and consider its viability as an easy-to-use measure of family engagement
- January-April 2008 Investigate assessments in use, including standardised (Welsh) assessments for reading and language
- April 2008 feedback work of Task and Finish Group to Heads of Service group
- April-September 2008 investigate implementation of Foundation Framework
- September 2008 investigate availability of MacArthur and UK normative data
- September-October 2008 contact Bangor University for information on development of Welsh-language assessment tools
- October-November 2008 scope available tools for children 0-36 months of age
- Oct-December 2008 contact Ronan Lyons for update on development of e-cohort
- Oct-December 2008–contact WAG for further update on Foundation Framework

7. Option Appraisal of language/communication tools for children 0-3 years

7.1 Introduction

The group looked at available tools, using the following selection criteria:

- age-range (suitable for use with 0-36 month old children)
- skills covered (reflects features of early language development)
- ease of use
- availability and cost
- training requirements
- availability of normative data.

The group agreed a weighting for each of these features as listed below.

Table 1. Selection Criteria.

Criteria	Weighting (maximum 20)	Notes
Covers age-range 0-36 months	20	
Easy to use and quick to administer	15	
Provides measure of early language development	20	
Low cost and easily available	15	
Requires limited training	15	
Norms available	15	

7.2 Short-listed options

The following tools were selected for further appraisal:

Preschool Language Scale-3 (UK) (PLS-3 (UK)).

This scale looks at both auditory comprehension and expressive language. It covers a broad age range from 0 to 6;11 years. Norm-referenced scores are available. This tool can be adapted for use with children who use sign language. However, it lacks fine-grain analysis in some of the earlier age ranges. Moreover, the strong auditory focus in these stages makes adaptation to hearing-impaired children more difficult.

The Pragmatics Profile of Everyday Communication Skills in Children (Dewart and Summers)

This profile considers 3 aspects of children's functional communication skills:

- Development of communicative functions
- Response to communication
- Participation in interaction and conversation

Its focus is not on language ability but on communication skills which may be mediated vocally or gesturally. It builds a detailed qualitative picture of these abilities. It does not provide normative data and uses broad chronological ranges (e.g. 0-9 months; 9-18 months; 18-36 months) which make it difficult to precisely locate a child's performance on a developmental continuum..

The tool can be used without adaptation for children who use sign as their primary mode of communication.

The Rossetti Infant-Toddler Language Scale

This scale is specifically designed to assess the language skills of children from birth to 3 years of age. It covers pre-verbal and verbal aspects of communication and interaction in this age group and looks at 6 key elements:

- Interaction-Attachment
- Pragmatics
- Gesture
- Play
- Language Comprehension
- Language Expression

It is criterion-referenced, providing descriptors of typical behaviour at 3-monthly intervals and allows a child's performance to be compared against typically developing age-mates.

Some examples, particularly in the earliest stages, have a strong spoken-language bias which may make it difficult to use with children for whom BSL is the primary mode of communication.

MacArthur Communicative Development Inventory (MacArthur CDI) and Oxford Communicative Development Inventory (Oxford CDI).

The original American-English MacArthur Communicative Development Inventory (MacArthur CDI) (www.sci.sdsu.edu) and its UK adaptation (Oxford CDI) (www.psyweb.psy.ox.ac.uk) provide:

- normative data (American norms and British data collected and made available to accompany the UK adaptation by Oxford University)
- standardised versions in BSL (www.ucl.ac.uk) and other languages
- a joint parent/professional assessment tool
- an instrument that could be used easily in pre-school years (with an age-limit of 30 months)

The CDI (Words and Sentences), designed for 16-30 month olds, provides information on vocabulary production and early grammatical development. A child's score can be compared to other children of the same age and sex, using percentile rankings.

The MacArthur takes the form of a vocabulary checklist with tick boxes for parents to indicate which words their child uses. Parental reporting which is supported by a recognition format, rather than relying on recall, has been shown to yield a reliable and accurate reflection of a young child's developing language (Thal and Bates, 1988 and Bates et al, 1989).

Reynell Developmental Language Scales III (RDLS III)

The Reynell can be used with children from 15 months of age to 7; 6 years. It is a norm-based, practical tool which looks at both comprehension and expressive language. It provides information at the single-word level, as well as reflecting development in syntax and grammar.

It has been adapted for use with signing deaf children.

7.3 Options evaluation

The short-listed options were considered in terms of how well they met the required criteria (see Appendix 2 for the Evaluation Tables).

The best fit was achieved with the *MacArthur Communicative Development Inventory*. The *Rossetti Infant-Toddler Language Scale* was ranked second, with the *Pre-school Language Scales* and the *Reynell Developmental Language Scales* in 3rd place. The *Pragmatics Profile* had the lowest ranking.

Table 2: Options Summary

Option	Name	Rank	Weighted Score
1	Pre-school Language Scales	3	760
2	Pragmatics Profile	5	710
3	Rossetti Infant-Toddler Language Scale	2	805
4	MacArthur Communicative Development Inventories	1	940*
5	Reynell Developmental Language Scales	3	760

The high score for the MacArthur is based on the use of the Oxford CDI, which is downloadable, free of charge. Use of the American version would lower the score on criterion 4, since the checklists are available only through one distributor at a cost. The Rossetti was also scored down on availability and cost criteria. The PLS and RDLs scored high in terms of language features assessed, but low in terms of cost and training required.

As an easily available tool which provides a simple measure of language achievement for the 0-36 months age-range, the MacArthur appears the tool of choice.

Before recommending the MacArthur, however, the group undertook a survey of parental opinion through parent groups in Cardiff and Wrexham.

7.4 Parental feedback on the MacArthur CDI and the Oxford CDI

7.4.1 Process

The parents were asked to complete the MacArthur and comment on its ease of use and any features they particularly liked or disliked. They were also asked to consider how well they felt it reflected their child's communication abilities.

To enable a comparison of the American and the Oxford versions, the Cardiff group were given the American version and the Wrexham group the Oxford version. Both groups were using the 16-30 months version.

7.4.2 Feedback

The feedback from the Cardiff parents is summarised below.

- Parents felt there were a number of 'inappropriate' items or Americanisms.
- There were concerns that the focus on 'production' of language items did not take a child's understanding or receptive abilities into account.
- Parents of children who were cognitively delayed suggested children with additional difficulties might not reach a base level for scoring.
- They felt this would be very discouraging for parents.

Feedback from the Wrexham parents suggested that:

- The tool was viewed as a good way of recording a child's progress.
- Parents liked the high level of their involvement in making this record.

7.4.3 Conclusion and recommendations.

This informal sampling of a small group of parents would suggest that:

- The MacArthur is a useful way of collecting reliable information on early language.
- Parents appreciate the key role they play in this data-collection
- The Toddler (16-30 months) version of the CDI may not reflect the performance of children with additional special needs
- The Infant version (8-16 months) (www.sci.sdsu.edu), with its focus on what the child can understand, may be a more appropriate alternative for this group.
- The amended Oxford version of the tool was preferred over the American version.

8. Measuring Outcomes: other issues

The group were aware of the range of confounding variables – including changes in technology – which lead to problems in comparing current with historical data. They recognised that the research literature tends to focus on small-scale studies and that there is little published on school-entry performance.

A prospective approach, it was agreed, would document the experiences of the children identified under newborn hearing screening through the early years and on into the Key Stages, providing a data bank which could be scrutinised along a range of dimensions.

Other elements that might come into consideration were family 'engagement'. A mechanism for tracking 'disposition' change over time would help to evaluate the relative contribution of early identification and family involvement in the progress made by a child.

The group looked at the Family Participation Rating Scale as a possible measurement tool (Moeller (2000). See Appendix 3). This rates a family's involvement based on 5 level descriptors ranging from Ideal Participation (5) to Limited Participation (1). The group's consensus was that the tool, as it stands, is based on a subjective assessment by personnel working with the family. The grading criteria would need to be tightened and matched to more objective measures to prevent bias and provide a more accurate measurement, which could be used to compare patterns of involvement across families.

There is no direct correlation in the literature between early identification and better outcomes long-term (see, for example, Kennedy et al (2006a) and Watkin et al (2007)). Studies presented at the Lake Como Newborn Hearing Screening Conference 2006 suggested early identification must be mediated by family engagement to be effective (e.g. Fitzpatrick et al, 'The Benefits of Early Intervention: A Question of Evidence'; Wake et al, 'Outcomes of Children with Mild-Profound Congenital Hearing Loss at 12-14 years: CHIVOS – A Population Study'). The key question is whether early identification of itself makes a difference, or whether early identification gives rise to a set of circumstances which promote a greater acceptance of deafness which contributes to better outcomes.

The group discussed the feasibility of an experimental-and-comparison-group type study based on a cohort from April 2003-April 2004. However, this would be research rather than performance measurement and poses a number of logistical problems. This could not be done centrally by NBHSW, and would need ethical approval on a Trust-by-Trust, family-by-family basis throughout Wales.

9. Assessment tools for Welsh-speaking children

To accurately measure language skills in deaf children who are first-language Welsh, an appropriately-adapted assessment tool, which is more than a simple translation of an English measure is essential. Margaret Denholm's questionnaire yielded some information about the availability and use of Welsh-language tools.

- Reynell Developmental Language Scales: Welsh Version
- (no teachers using)
- Dyfed Articulation Test
- (no teachers using)
- Prawf Darllen Glannau Menai
- (no teachers using and considered outdated)

As part of the scoping exercise on the availability of Welsh assessment tools, members of the team also made contact with Dr Enlli Thomas who is currently working on projects to develop standardised assessment tools for measuring the linguistic abilities of Welsh-speaking children and young adults.

In the first phase of this project, Dr Thomas and the team have completed trials on a standardised receptive vocabulary test for 7-11 year olds. The next stage will be to develop tools for the 3-6 years and 11-15 years age-ranges (Gathercole, Thomas and Hughes (in press)).

Members of the task-and-finish group were also directed to Prof Marilyn Vihman (University of York) who has worked on a Welsh-language version of the CDI. This was used purely as a research tool with 150 children, but with no formal norms. Further work to develop normative data would depend on funding being made available.

10. Common Monitoring Protocol.

In England, the Common Monitoring Protocol (CMP) (www.earlysupport.org.uk) was rolled out to staff working with young deaf babies and toddlers via a programme of government-funded training and access to materials free of charge. This had not been the case in Wales, although anecdotal evidence suggests that individual Teachers of the Deaf and Speech and Language Therapists were downloading material from the Early Support website for use with families. However, it was learnt, at the end of January as this Report was being compiled, that a group, led by Sue Lewis, has been successful in winning the tender for delivering training on the Common Monitoring Protocol and rolling it out across Wales. WAG has already made money available to begin translating the materials into Welsh.

The CMP provides detailed qualitative data on a child's progress from 0-3 years of age. Age-referenced, it describes typical development across 5 domains (Communication, Attending, Listening and Vocalisation, Social-emotional, Other

Developmental Milestones, Play) at 2 monthly, then 3 monthly and finally 6 monthly intervals.

It is a parent-held record, which allows families to chart their child's progress against developmental milestones. It also represents a valuable tool for staff involved in the early support of families, helping to inform discussion and shape planning.

How easy it would be to aggregate data to provide national profiles is as yet untested, although the Protocol has been used in the recent Positive Support Project undertaken by NHSP (www.positivesupport.info). The results from this Project may provide some early group-data.

As a tool for use with children with a hearing impairment, there is no comparison data from a group of hearing children.

However, the CMP provides detailed qualitative data which would complement a more quantitative measure of progress at the end of the 0-3 years age-range.

The group would hope that the tendering process for rolling-out training on the tool would have built into it a defined mechanism for recording and reporting the data collected. They would further like to see information-sharing arrangements established which would enable this data to be seen by NBHSW, as well as Education.

11. Foundation Phase Framework

The Foundation Phase was introduced in schools in Wales on a statutory basis for 3 to 4-year olds in September 2008. A new curriculum for 3 to 7 year olds replaces the Desirable Outcomes for Children's Learning before compulsory school age and Key Stage 1.

Children will be formally assessed on 2 occasions during the Foundation Phase, on entry, and at age 7. The first statutory assessments, both baseline and at age 7, will be at the start and end of the 2011/2012 school year. Development is in progress on the single all-Wales baseline assessment scheme and will be trialled during the 2009/2010 school year. Statutory assessment at age 7 will focus on 3 of the 7 Areas of Learning which make up the Foundation Phase.

Data-collection and data-transfer requirements are currently being considered and a full consultation exercise is planned. However, it is unlikely that information will be available at a pupil level. School-level information would be available via school prospectuses.

(We would like to thank Jon N Hawkins (Foundation Phase Policy Branch, Department for Children, Education, Lifelong Learning and Skills, WAG) for this information).

The MacArthur and Common Monitoring Protocol, together with baseline assessment and testing at age 7, would provide a continuum of assessment and potential early markers of the impact of identification in infancy. However, information from Education would not be available before 2011 and would be available at a school-level only.

12. Implementation process for the introduction of the MacArthur as a common measure of early-language development across Wales.

12.1 Training requirements

Although no formal training is required to complete the MacArthur, some familiarisation with the tool for ToDs and other early support personnel who might be introducing it to parents (e.g. S<s) would be necessary. This would enable them to set the tool in context for parents; explain its aims and how the information gathered would be used to measure the impact of newborn hearing screening. This familiarisation could be incorporated into mandatory training for ToDs. Thought would need to be given as to how this process might be extended (e.g. via outreach training and up-date days) to ToDs already in post or who move into the area from outside Wales or to non-ToD staff who work in an early-support role with babies and toddlers with a hearing loss.

12.2 Timing

The timing of the use of the tool would need to be regularised to ensure that parents were completing forms as close to the upper limit of 2;6 as possible.

The support of Heads of Service throughout Wales would be essential to ensure compliance with the requirement to complete.

12.3 Data collection and data analysis

Data collection could be centralised, by asking Heads of Service to collect raw data on individual children from their staff on behalf of NBHSW.

Combined with information already held by NBHSW, vocabulary scores and early grammatical performance could be correlated with a range of variables, including age of identification, age at hearing-aid fitting and level and types of loss.

Comparisons could be carried out along a range of dimensions including;

- Within-programme comparisons between children
- Comparison with the Oxford BabyLab normative data
- Comparison with statistical information available via the NHSP Positive Support Project
- Over-time comparisons of the performance of successive cohorts.

Longer term NBHSW would be able to develop its own normative data.

Information-reporting could be through the annual reports of the Associate Director and might address a range of levels, for example:

- Individual (anonymised)
- LHB
- Trust
- Divisional
- LEA

In the long term, there is potential for:

- Year on year reviews of performance
- Performance over time, measuring the impact of improvements in services supporting children post-screening (e.g. Audiology and Education)
- On-going evaluation of the predictive value of the MacArthur.

13.E-Cohort.

13.1 Background

Work is currently in progress, under the direction of Professor Ronan Lyons, on developing an all-Wales Electronic Child Cohort (WECC) to support improvements in the practice and policy informing services to children in Wales. A Secure Anonymised Information Linkage (SAIL) system makes it possible to link information on anonymised individuals.

The e-cohort provides a potential platform for sharing information between Education and Health. At present, the information from Education is limited to the reporting of outcomes at the end of Key Stages 2 and 4. This information is available both as aggregated summary data and anonymised information on individuals.

Work would be needed to extend the age range down to the Foundation phase, with the added difficulty that reporting outcomes at these early ages has not been done in the past, nor is it currently envisaged as part of the roll-out of the Foundation Framework.

Professor Lyons and his team have a data-sharing agreement with DCELLS for the key-stage 2 and 4 information. As a first step in exploring the potential of the e-platform, WAG would need to be asked to re-consider their stance on making data available on individual children. The obvious forum for raising this would be the consultation exercise, but NBHSW is unlikely to be included in this. Eliciting the support of Heads of Service and the Voluntary Sector, who have recently lobbied for improved data on deaf children, may help to bring this issue to more national prominence.

14. Conclusion.

The MacArthur represents an accessible tool for measuring key indicators of early language ability.

With the cooperation of Education colleagues to ensure consistent use and timing it has the potential to yield important data at a very early stage in a child's language development.

The mechanism for collecting the MacArthur data would have to be agreed with Heads of Service. Support would also be required from the University of Newport which awards the mandatory qualification for ToDs to incorporate familiarisation with the MacArthur into teacher-training. A programme of familiarisation with the tool and its use as a measure of the effectiveness of the newborn hearing screening programme would also need to be devised for teachers in post and for non-ToDs working with the families of early-identified babies.

A programme of information from NBHSW about the proposed use of the tool would also be necessary and would need to encompass Health Visitors, ToDs and S<s. Gaining the support of voluntary groups, particularly the NDCS, would be crucial and would help to raise the profile of outcome measuring in the early years at a governmental level.

The MacArthur would represent a useful first step in the longitudinal monitoring of the achievement of children with a hearing impairment. It would begin a process of

charting their progress which may contribute to closing the gap between deaf children and their hearing peers. Reducing the achievement gap is at the heart of services for children with a hearing impairment and a primary motor for the early identification of hearing loss.

15. Key-point summary.

Recommended tool:

- The MacArthur represents a parent-centred approach to capturing early-language performance
- The MacArthur has an age-limit of 2;6 years
- Results would not be corrected for prematurity.

Education data:

Foundation-Phase

- First Foundation-Phase statutory assessments 2011/2012.
- No plan to report this data at a national level.
- School-level information will be available via school prospectuses.
- Information on individual children will not be reported.

Key transition points

- Collect information at transition to Secondary school (performance on literacy measure)
- Collect information at Yr 11 (exam results)

All-Wales Electronic Child Cohort (WECC):

- No Foundation Phase data available before 2011/2012
- Results would need to be collected for a number of years (3+) to develop useful data-set
- Unlikely data would be available for input into WECC before 2014/2015

Recommendations:

- NBHSW to request MacArthur data from relevant Heads of Service on a child-by-child basis (small numbers of babies identified in Wales each year and accurate database make this possible)
- Start-date 2009/2010 (following agreement with Heads of Service and familiarisation with tool for early-support personnel)
- 2011/2012 and ongoing – request parental consent to access and record Foundation-Phase results for hearing-impaired children
- 2011/2012-2014/2015 –
 - record data at NBHSW level
 - develop research proposal for inclusion of data in all-Wales e-cohort
- 2014/2015 and ongoing –integrate NBHSW data into e-cohort and plan and refine strategies for data sharing to support service development.

Appendix 1: Questionnaire on Assessment Materials for Pupils with a Hearing Impairment

Your assistance in completing the questionnaire is very much appreciated. If sufficient responses are received to produce a reasonably informed picture of test materials in use in Wales, the results of the survey will be sent to all respondents.

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Instructions for completing the questionnaire

For each test you will be asked:

- whether you use it or not (please tick the Y or N box)
- if yes, then to (a) rate its ease of use on a scale of 1-5 [1 is easiest and 5 most difficult] and (b) rate the value of the information it provides [1 most valuable and 5 least valuable]
- there is a section to add additional comments whether or not you use the test e.g. 'time consuming but worth it' or 'don't use because dated'
- please note that if you complete the test electronically, once you have clicked on the relevant box it will expand to contain your comments
- at the end of each section you will be asked to name any additional tests that you use which have not been included in the questionnaire.

Results of Questionnaire on Assessment Materials for Pupils with Hearing Impairment sent to Education Services in Wales

Part 1: Assessments of Hearing, Listening and Use of Amplification

Test	Number of users	Comments
McCormick Toy Discrimination Test	10	<ul style="list-style-type: none"> • very good with young children especially with additional needs • very useful as quick impression of discrimination with young children or those with additional needs • useful to use on monitoring visits, child friendly • good for listening to young child's speech as well as their hearing • gives lots of information re speech discrimination in young children • very useful with younger children • always very useful with the right age group but not with some of the older ones • useful for the children to say the names of the toys to detect speech difficulties
Nottingham Early Assessment Package (Auditory Perception Section)	3	<ul style="list-style-type: none"> • have just bought this and attended course - predict it as being very useful • only used in conjunction with Nott CI • we have it but it has not been used more than once
Manchester Picture Test	6	<ul style="list-style-type: none"> • some of the pictures in our set are quite dated, even though the recording sheets are titled NEW Manchester Picture Test • very useful with younger children who enjoy doing this. Gives good impression of speech perception and use of aids • have used in past - pictures rather outdated • at appropriate age, can be very useful where there are articulation difficulties • have got the assessment but do not use much

Manchester Junior Word Lists	13	<ul style="list-style-type: none"> • as with all word lists they have their place in providing an overall picture of auditory discrimination but I don't use them clinically, only use them to inform as to the child's functioning in quiet and in noise, useful for shaping advice to teachers and comparing functioning with/without FM if need be • useful to use on monitoring visits. Good to show child results and discuss with them benefits of aid/type of loss/speech reading skills • we used to use them but now tend to use short word lists • very good with variety of children including those with additional needs • these are an excellent guide to how effective a child's hearing aids are. Easily interpreted results - useful for report writing • very useful for initial assessments
MJS Lists	7	<ul style="list-style-type: none"> • useful for freefield assessment - more suitable for older KS2 • used for most assessments with primary school children
AB Word Lists	12	<ul style="list-style-type: none"> • quick and straightforward • useful to use on monitoring visits. Good to discuss results with pupil • tend to use Manchester Word Lists <ul style="list-style-type: none"> • used for initial assessments • use these with older children especially at KS3 onwards
Parrot	0	<ul style="list-style-type: none"> • have used in the past and found very useful but do not have it available in current job • did not like the original version with MP test. Saw it used inappropriately. Would like the new version with speech in noise test but price is prohibitive
Manchester Sentence Lists	5	<ul style="list-style-type: none"> • don't use for assessment but sometimes for short term auditory memory. Outdated!

		<ul style="list-style-type: none"> • a bit antiquated! But, useful for assessment particularly for older KS2 • I used them occasionally because I am old but really now rather dated
Kids Trax	4	<ul style="list-style-type: none"> • useful to show teachers how much/little HI children hear of 'running' speech • sometimes difficult to score and know if responses are hearing or speech. I feel I should make more use of it but it is time consuming • good to show progression - especially good for CI children for auditory memory • used mainly by one teacher in the service
Med-EL Little Ears Auditory Questionnaire	1	
Parents' Evaluation of Aural/oral Performance of Children (PEACH)	3	<ul style="list-style-type: none"> • have modified it slightly for ease of use but now tend to use ESP materials • have a questionnaire for Babies and Pre-schoolers adapted from PEACH but have never used it • it is normally part of our standards
Teachers' Evaluation of Aural/oral performance of Children (TEACH)	1	<ul style="list-style-type: none"> • not used as frequently as PEACH
Life-UK IHP Listening Inventories for Education UK Individual Hearing Profile	5	<ul style="list-style-type: none"> • sometimes pupils do not understand questions and some are not relevant but we give it to 10+age pupils annually if possible and send results to audiology • not often many surprises in the answers/useful for sharing results with classteachers • probably used most commonly
Test of Auditory Perception 1 (TAPS 1)	0	
Test of Auditory Perception 2 (TAPS 2)	0	

Additional assessment materials used by services:

- BKB sentence lists
- Auditory Word Discrimination and Attention Test
- Webster's Profiles of the Hearing Impaired

- Manchester Cochlear Implant Programme - Habilitation for Cochlear Implant Users
- IOWA
- Cambridge Picture Tests (P. Marriage)
- POSY (consonant confusion test)
- Ling sounds
- Merklein
- LSQ parent version
- Sifter
- Rosetti Infant-Toddler Language Scale

Part 2: Assessments of Language

Test	Number of users	Comments
NEAP (sections on communication and language)	4	<ul style="list-style-type: none"> • with CI team • we do have it and intend using it! • used mainly by one teacher
Common Objects Token Test	0	
Harcourt Preschool Language Scales	0	
North Tyneside Pupil Support Pre-literacy Skills Checklist	2	
North and Parker Phonological Awareness Assessment	0	
British Picture Vocabulary Scales	12	<ul style="list-style-type: none"> • good as a means of tracking development • useful for initial evaluation of vocabulary and good indicator of progress on a yearly basis • use on initial assessment with Ravens. Very useful for annual progress • gives good base for knowledge of receptive language/shows progression or lack of progression from top infants to secondary <ul style="list-style-type: none"> • quite lengthy • not overly keen/everyone's using BPVS! • is used by most members of the team • not all vocabulary is relevant to the curriculum
Renfrew Action Picture Test	10	<ul style="list-style-type: none"> • quick age score, good to identify

		<p>language specific difficulty, along with hearing assessment</p> <ul style="list-style-type: none"> • good to use to see annual progress/not always easy to score • gives simple idea of language development of young children/used but not often • gives an idea of grammar usage/recording child's response takes time <ul style="list-style-type: none"> • very useful • is available and is used but not always consistently
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Renfrew Word Finding Vocabulary Test	10	<ul style="list-style-type: none"> • used on initial assessment for young school aged children/difficult if they have poor speech • excellent for all areas of language development/easy to administer but difficult to score but excellent for marking syntactic development • the children enjoy this test/useful for highlighting gaps • very useful • probably used more commonly than BPVS • quick and easy to use
Renfrew Bus Story Test	9	<ul style="list-style-type: none"> • good for children and annual progress but can be difficult if speech is poor/usually tape <ul style="list-style-type: none"> • laborious! Especially interpreting the results • only seems to be used occasionally but definitely is of some value
Reynell Language Development Profiles	4	<ul style="list-style-type: none"> • can take time but with children seen regularly useful especially for setting IEP targets • time consuming but gives excellent information/assessment gets too difficult too quickly • only two qualified to use it and kit

		<p>is too expensive</p> <ul style="list-style-type: none"> we only use RDLS2 as no one has so far trained using 3/expressive language scales always slightly questionable
Reynell Developmental Language Scales:Welsh Version	0	
Dyfed Articulation Test	0	
South Tyneside Assessment of Phonology(STAP)	4	<ul style="list-style-type: none"> gives no information on vowel sounds/pictures are very old fashioned <ul style="list-style-type: none"> used by SALT is available but only used occasionally

South Tyneside Assessment of Syntactic Structures(STASS)	7	<ul style="list-style-type: none"> find this difficult to analyse and quite time consuming but useful when used valuable on syntactic/difficult to mark on their standardised form/time consuming to mark <ul style="list-style-type: none"> used by SALT we used to use it quite frequently but is really quite time consuming especially if not undertaking regularly just started using this so not too familiar
Language Assessment and Remediation Screening (LARSP)	0	<ul style="list-style-type: none"> too cumbersome to administer
Grammar and Phonology Screening Test (GAPS)	0	
Test of Reception and Grammar(TROG)	4	<ul style="list-style-type: none"> considering using next term I have used this in the past and found it very useful. In our RB the specialist SALT uses it <ul style="list-style-type: none"> used by SALT used by most of the team consistently valuable to use to set IEP targets
Assessing British Sign Language Development - Receptive Skills Test	2	<ul style="list-style-type: none"> member of staff to be trained 2008 and supply of test part of package can be difficult to standardise if doing personally. If child is not fully BSL can be difficult/give misleading results if more SSE used. Useful as general indicator

		of level and progress
Assessing BSL Development - Expressive Skills Test	1	<ul style="list-style-type: none"> • member of staff to be trained 2008 and supply of test part of package
Assessment of Communication and Expression (ACE)	5	<ul style="list-style-type: none"> • time consuming to use all materials but useful as an overall assessment tool • good for developing IEP language targets/excellent assessment and gives invaluable information on language development • we should be using this but no one is trained/this should be addressed in the next few months <ul style="list-style-type: none"> • very hard to score syntax and narrative elements • have in the service but not used yet

Surrey Nursery Reading Screen	0	
Salford Sentence Reading Test	3	<ul style="list-style-type: none"> • quick and easy to administer • very quick and useful/good correlation with school tests
Neale Analysis of Reading Ability	5	<ul style="list-style-type: none"> • takes too long • we have this but haven't used it for years <ul style="list-style-type: none"> • used in the past • schools usually provide us with R.A. and S.A.
Making Sense of It (Miscue Analysis Test in Oral Reading)	0	
Edinburgh Reading Test	9	<ul style="list-style-type: none"> • time consuming compared to others but more useful as the different aspects of reading are separated out • good for annual progress and gaps <ul style="list-style-type: none"> • difficult to analyse the information after marking • helps to target support • at times seems dated but it is still the most useful of tests for the information it provides
All Wales Reading Test	2	<ul style="list-style-type: none"> • used in schools/results go on EMS so we do have access • used by the schools but we will always use ERT

Prawf Darllen Glannau Menai	1	• outdated
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Additional assessment materials used by services:

- Derbyshire Language Scheme
- Crystal's Sentence Imitation
- Owls Oral and Written Language Scales
- ELKLAN materials
- QUEST
- Gray Reading Tests
- Young's Parallel Spelling
- T.O.W.K.
- Single Word Spelling Test
- P.A.T.
- Oxford Intervention Assessment
- Webster's Profiles of the Hearing Impaired
- Phonological Screening Assessment (Stevens and Isles)
- ESP Monitoring Protocol
- Profiles by Locke and Beech
- Ladybird Speech

Appendix 2 Options Evaluation Tables

Option

1 Pre-school Language Scales

Advantages

- 1 Suitable for use with 0-36 month olds
- 2 Administration time approx 30 mins
- 3 Samples expressive and receptive language
- 4
- 5
- 6 Provides standardised scores and percentile ranks

Disadvantages

- 1
- 2 Requires familiarity with scoring procedures
- 3
- 4 Cost of complete kit is £193.00. Available only to professionals with appropriate background and training.
- 5 See 2 and 4 above
- 6

Criteria	Weighting	Score (Max 10)	Weighted Score
1.	20	10	200
2.	15	6	90
3.	20	10	200
4.	15	4	60
5.	15	4	60
6.	15	10	150
Total	100	44	760

**Option
2**

Pragmatics Profile

Advantages

- 1 Pre-school version can be used with children 0-4 years of age.
- 2 Takes approx 30 mins to complete. Focuses on everyday communication in everyday contexts.
- 3
- 4 Downloadable free from www.wedit.wmin.ac.uk. Can be used by all staff working with children in the age-range.
- 5
- 6

Disadvantages

- 1
- 2
- 3 Measures children's communicative competence rather than language
- 4
- 5
- 6 No standardised data or norms

Criteria	Weighting	Score (Max 10)	Weighted Score
1.	20	10	200
2.	15	10	150
3.	20	3	60
4.	15	10	150
5.	15	10	150
6.	15	0	0
Total	100	43	710

**Option
3**

Rossetti Infant-Toddler Language Scale

Advantages

- 1 Tool is specifically devised for use with 0-36 months age-group.
- 2 Incorporates parental report with behaviours that are informally observed or elicited through play.
- 3 Samples pre-verbal and verbal communication.
- 4
- 5 Designed for use by professionals who have experience of working with babies and toddlers. Requires no further training.
- 6

Disadvantages

- 1
- 2
- 3
- 4 Not easily available through UK stockists. Order through www.linguistics.com. Cost = \$109.95
- 5
- 6 No percentile rankings, but able to place child on developmental continuum at 3-month intervals.

Criteria	Weighting	Score (Max 10)	Weighted Score
1.	20	10	200
2.	15	10	150
3.	20	10	200
4.	15	3	45
5.	15	10	150
6.	15	4	60
Total	100	47	805

**Option
4**

MacArthur Communicative Development Inventories

Advantages

- 1 Covers age-range 0-30 months
- 2 Completed by parents. Takes approx 30 mins.
- 3 Yields scores for vocab production and aspects of early grammatical development.
- 4 Oxford Communicative Development Inventory (UK adaptation) is downloadable free of charge.
- 5 Parents and profs working with them would require only familiarisation with tool and its aims and methods
- 6 Normed scores make it possible to place child's score within percentile ranking.

Disadvantages

- 1 Upper age-range is 30 months.
- 2
- 3
- 4 The American version is available via eurospan@turpin-distribution.com for £47.65 (manual only); scoresheets are extra.
- 5
- 6

Criteria	Weighting	Score (Max 10)	Weighted Score
1.	20	7	140
2.	15	10	150
3.	20	10	200
4.	15	10*	150
5.	15	10	150
6.	15	10	150
Total	100	57	940

**Option
5**

Reynell Developmental Language Scales III

Advantages

- 1 Can be used with children from 15 months of age.
- 2 Takes 30-40 mins to administer.
- 3 Looks at comprehension and expressive language.
- 4
- 5
- 6 Provides separate scores for receptive and expressive language which give age-equivalent and percentile scores.

Disadvantages

- 1
- 2 Available only to qualified, registered users.
- 3
- 4 Costs = £525.00
- 5 See 2 above.
- 6

Criteria	Weighting	Score (Max 10)	Weighted Score
1.	20	10	200
2.	15	6	90
3.	20	10	200
4.	15	4	60
5.	15	4	60
6.	15	10	150
Total	100	44	760

Appendix 3: Family Participation Rating Scale:

APPENDIX

Early Intervention Efficacy Project: Family Participation Rating Scale

In an effort to understand variables that influence the progress of young deaf/hh children, I am attempting to characterize the quality/level of family participation that existed in individual children's programs in our community. I am asking that 2 educators who worked directly with the families involved assign a rating to describe the level of family involvement. To aid this process, I have provided a verbal case description that represents each rating of 1 to 5. On this continuum, a rating of 1 represents limited involvement (far below average). A rating of 5 represents ideal involvement. You will notice on the rating form there is a place to indicate how well you recall the family (eg, you are indicating how confident you feel in assigning a rating). You are asked to indicate if your recall is good, okay, or questionable. If you believe that you are not familiar enough with a particular family, then do not assign a rating at all.

Rating Scale Descriptors

Rating of 5 (Ideal Participation)

Family seems to have made a good adjustment to the child's deafness. The family is able to put the child's disability in perspective within the family. Family members actively engage in sessions. They attend sessions and meetings regularly and pursue information on their own. They serve as effective advocates for their child with professionals/school districts, etc. Family members become highly effective conversational partners with the child and serve as strong and constant language models. Family members become fluent/effective users of the child's mode of communication. They are capable of applying techniques of language expansion. Extended family members are involved and supportive.

Rating of 4 (Good Participation)

Family members make a better than average adjustment to the child's deafness. Family members regularly attend parent meetings and sessions. Parents take an active role (perhaps not the lead) in Individual Family Service Plans and Individual Education Plans. Family members serve as good language models for the child and make an effort to carry over techniques at home. Some family members have fairly good facility in the child's communication mode and/or in techniques for language stimulation. Efforts are made to involve extended family members.

Rating of 3 (Average Participation)

Family is making efforts to understand and cope with the child's diagnosis. Family members participate in most sessions/meetings. Busy schedules or family stresses may limit opportunities for carryover of what is learned. Family may find management of the child challenging. Family attends Individual Family Service Plan and Individual Education Plan meetings but may rely primarily on professional guidance. Family attempts to advocate but may be misdirected in some of their efforts. Selected family members (eg, mother) may carry more than their share of responsibility for the child's communicative needs. Family members develop at least basic facility in child's communication mode. Family members are willing to use language expansion techniques but need ongoing support and direction.

Rating of 2 (Below Average)

Family struggles in acceptance of the child's diagnosis. The family may be inconsistent in attendance. They may be inconsistent in maintaining the hearing aids and keeping them on the child outside of school. They may have some significant life stressors that interfere with consistent carryover at home. Management of the child presents daily challenges to the family. Communicative interactions with the child are basic. Family lacks fluency in the child's mode of communication.

Rating of 1 (Limited Participation)

Family faces significant life stresses that may take precedence over the child's needs (eg, domestic abuse, homelessness). Family has limited understanding of deafness and its consequences for the child. Participation may be sporadic or less than effective. Parent/child communication is limited to very basic needs.

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