Speech & Language Therapy
Training for Teachers
Session 1-Introduction
02-10-13

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Week 1

- General overview of Speech and Language Therapy
- How to identify a child with S&L difficulties
- Referral indicators and procedure
- Developmental norms
- SLT assessments
- SLT reports
Week 2

- Interpreting SLT reports/assessment subtest analysis
- Goal setting
- Ideas and resources for language development, narrative, story comprehension etc
- Case Studies-afternoon group work
Week 3

- Linking oral language development to the curriculum
- Programme development-afternoon group work
- Question time
Introduction to Speech & Language Therapy
Early Identification

- Children identified at age 5 or later have a poorer prognosis with remediation than those identified earlier.
- Speech and Language delay may affect long term literacy, socialisation, behaviour and educational attainment.
- A child may be referred at any age from 0-18 years.
Risk Factors

<table>
<thead>
<tr>
<th>Risk Factor</th>
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<tbody>
<tr>
<td>Family history of speech or language difficulties</td>
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<tr>
<td>Any history of hearing difficulties</td>
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<tr>
<td>Concerns about parent-child interaction</td>
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<tr>
<td>Associated difficulties with behaviour/attention</td>
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<tr>
<td>Poorly developed play/social skills</td>
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</table>
Prevalence

- Estimates vary- Law et al (2000) prevalence 5-9% in average population
- **Start Right Project**- Southside area- 451 children assessed in total
  - 48.5% presented with age-appropriate speech and language skills
  - 26.6% presented with a severe speech and language delay/disorder
  - 24.8% presented with a mild speech and language delay
  - Total requiring SLT intervention = **51.4%**
Identify the child’s needs

Expressive Language:

• To establish a child’s expressive language ability, first obtain an oral language sample e.g. news time/retelling of a familiar story or fairy tale/discussion

• Consider where the child’s main difficulties lie. Is it in vocabulary, sentence construction, grammar etc
Identify the child’s needs

Receptive Language:
• Can the child follow 2, 3 and 4 step auditory directions?
• Are they able to follow classroom directions?
• Do they have difficulty understanding concepts of time, space or location?
• Are they able to understand ‘wh’ qts and respond to them appropriately?
Other things to look out for...

- Play skills - are they well developed, is pretend play/imaginative play present?
- Lack of social understanding i.e. turn-taking, poor eye contact, difficulty making friends
- Learning difficulties in the classroom
- Emotional and behavioural problems
- Speaking out of turn, straying off topic, giving inappropriate answers
Referral Criteria

- Open referral system—parents or any professional with parental permission may refer

- All referrals to be sent directly to your local health centre/primary care team
Referral cont....

• A child who has already been referred to, or in receipt of, services from Early Intervention Teams or School Age disability teams is not eligible for primary care Speech and Language Therapy services.

• Once referral is made the child is wait listed for initial assessment.

• Following initial assessment the child is given a priority rating based on needs then may be wait listed for therapy, review or an onward referral is made.
Types of referrals we see

- Speech Delay
- Speech Disorder
- Language Delay
- Language Disorder
- Stammering
- Voice disorder
- Hearing Impairment
- Cleft lip and palate
- Bilingual
- Feeding difficulties
- Selective mutism
SLT assessments

- **Clinical Evaluation of Language Fundamentals Preschool 2 (CELF Preschool 2)**
  - Children aged 3-6 years
  - Assessment of receptive and expressive language
  - Standardised

- **Clinical Evaluation of Language Fundamentals 4 (CELF 4)**
  - Children aged 5-16 years
  - Assessment of receptive and expressive language
  - Standardised

- **Diagnostic Evaluation of Articulation and Phonology (DEAP)**
  - Children of all ages
  - Assessment of speech
    - Standardised
Assessments

Narrative: Bus Story/ Peter and the Cat
- Receptive narrative
  - Basic story grammar qts
  - Critical thinking qts
- Expressive Narrative
  - Content
  - Grammar
  - Use-social aspects of narrative
Other Assessments

- Expressive vocabulary—Renfrew Word Finding Vocabulary Test
- Receptive Vocabulary—British Picture Vocabulary Scales (BPVS)
- German Test of Word Finding (both expressive and receptive)
- Renfrew Action Picture Test (RAPT)—quick and easy assessment of expressive language (syntax, morphology, vocabulary)
Assessment Scoring

All standardised assessments are scored to obtain:

• Subtest Standard/Scaled Scores

• Receptive and Expressive Scores
  - Average subtest scaled score = 7-13
  - Above average score = 13-17
  - Below Average score = 3-7
Assessment Scoring

Scores computed include:

- Core Language core (total language score)
- Receptive Language Score (comprehension)
- Expressive Language Score (use of language)

- On a scale of 100 and a standard deviation of 15
  - Average range for these scores are 85 to 115
Assessment Scoring

- Within Normal Limits: 86+ (between + or − 1 Sd)
- Mild language Delay: 78-85 (between -1 and -1.5 Sd)
- Moderate language Delay: 71-77 (between -1.5 and -2 Sd)
- Severe Language Delay: 70 and below (-2 Sd and below)
Report Writing

• Written:
  - after every initial assessment
  - if needed for onward referral, NEPS etc
  - progress report
  - copies sent to parents, referral source and school once parent has consented
Reports contd.

- Reports include:
  - Birth and developmental history
  - Hearing/medical/feeding history
  - Speech and language development to date
  - Assessments carried out
  - Observations of the child i.e. attention, concentration, listening, play skills
  - Diagnosis, breakdown of performance on each subtest
  - Recommendations
Interpreting a report

Results section:
- Interpreting scores
- Diagnosis i.e. receptive vs. expressive, phonological vs. articulation
- Areas of weakness
- Areas of strength
- Subtest analysis
(Session2)
Interpreting results

• Delay vs. disorder

• Receptive vs. expressive

• Articulation vs. phonological
Delay vs. Disorder

• A delay means that the child is following the normal pattern of language development but that they are not at the level they should be for their age

• A disorder means that the child is following an atypical pattern of language development

• A delay is generally easier to treat and the child may even “grow out of it” themselves or with minimal input

• A disorder will not resolve by itself and the child will need additional help
Receptive vs. Expressive Language

- **Receptive Language**: understanding what is being said by others be it spoken, written or signed

- **Expressive Language**: use or production of language be it spoken, written or signed
Articulation vs. Phonology

- **Articulation:** Child can’t pronounce the sound and needs to be taught how to do so e.g. interdental /s/ (lisp)

- **Phonology:** Child can pronounce sound but doesn’t always do so correctly e.g. child can say /k/ but still says “tat” for “cat”
Interpreting Results

• Determine diagnosis
• Look at performance in each area/subtest of the assessment
• Determine if child is meeting developmental norms
• If not choose goals for therapy, resource, IEP etc

*Note: this will be covered in greater detail in Session 2
Norms of Speech & Language Development
Bilingualism

• There is a great deal of evidence that infants and young children can learn two languages very successfully. The early milestones of language development happen at the same time for children who learn one language or two.

• As bilingual children grow older, there are some differences between their language use and growth when compared to monolingual children, but these differences are completely normal. They should not be a cause for concern or considered a risk factor for language delays and disorders. For example, bilingual children may mix their two languages together in one sentence and they may be more proficient in one of their languages than the other in terms of their vocabulary and grammar. The language they are more proficient in is usually the language they speak and hear the most.
Bilingualism

- Bilingual children in the older preschool and early school age years may take a little longer than monolinguals to perfect the finer points of their languages. For example, in English, the past tense includes numerous irregular verbs, dig – dug, sing – sang, catch – caught, as well as verbs that take “-ed” for the past tense, talk – talked, help – helped.

- When English is one language of a bilingual child, that child might make more errors with the irregular verbs than monolingual English-speaking children the same age by saying “digged” instead of “dug” or “catched” instead of “caught.”
Bilingualism

- All bilinguals of all ages code-mix (switch between languages) sometimes, and this is not a sign of language disorder. Most of the time, young children will code-mix more when they are having a conversation in the language they are less proficient in. (Young bilingual children are seldom equally proficient in both their languages.)

- Sometimes, bilingual children will choose words based on how familiar they are with them, rather than based on what language they come from, and therefore, end up mixing languages in one sentence.
Bilingualism

• When it comes to comparing a bilingual child’s proficiency in their languages to their peers, it is important to determine whether the child appears to have lower proficiency in one or both languages, and whether one language might be progressing more slowly because the child hears and uses it less than his bilingual peers do.

• If the child shows slow development in both languages that seems to be quite noticeable compared with other bilinguals, then it would be advised to see a speech therapist for an assessment.
Bilingualism

• It can take 3-5 years in school for children to have oral language proficiency in their second language on a par with their monolingual peers.

• It can take 5-7 years for them to have academic language skills, including reading and writing, on a par with their monolingual peers.
STAGES OF SPEECH SOUND ACQUISITION

By 3 yrs–3; 6 yrs:

• Expected sounds: p, b, t, d, w, h, m, n, f

• Should be able to say ‘fish’ not ‘bish’, ‘pig’ not ‘big’ and ‘toe’ not ‘doe’
STAGES OF SPEECH SOUND ACQUISITION

By 4 yrs:

- Expected sounds: p, b, t, d, w, h, m, n, f, v, s, k, g, l, ng

- Should be able to say 'car' not 'tar', 'goal' not 'doal' and 'sun' not 'dun'
By 5 yrs:

- Expected sounds: p, b, t, d, w, h, m, n, f, s, k, g, l, ng, s clusters (sp, sm, sn, st, sk, sw, sl), sh, ch and j

- Should be saying 'spoon' not 'boon', 'shoe' not 'sue', 'chair' not 'dair' and 'juice' not 'duice'
STAGES OF SPEECH SOUND ACQUISITION

By 6-7yrs:

• Should be able to produce the ‘s’ sound with no lisp

By 8 years:

• Should be able to produce the ‘r’ sound i.e. can say ‘rabbit’ not ‘wabbit’
Phonological awareness

Phonological awareness is awareness of sounds within words and therefore phonological awareness training aims to give the child access to the sounds within words. It is auditory based. The child is taught to discriminate, segment and blend sounds

- E.g. what is the first/last/medial sound in 'cat'
- If you take the first sound away from 'cat' and replace it with 's', what word do you get?
Phonological Awareness

• Phonics is the last stage of phonological awareness where training is aimed at letter to sound correspondence enabling children to encode and decode thus read and write.

• Children who have had speech sound difficulties (specifically phonological) are more likely to have reading and spelling difficulties.
Why is Phonological Awareness important?

• Phonological awareness is the strongest predictor of success in early reading

• 35% of the children who enter primary school have not naturally acquired phonological awareness and need to be taught these skills

• Phonological awareness allows children to play with blending, segmenting and manipulating sounds
Impact of speech/language difficulties on literacy

- Dodd & Gillon (2005) - Children with speech/language impairment are 4-5 times more likely to experience reading/spelling problems.

- 50-70% of children with spoken language impairment present with academic difficulties in adolescence.

- Children with disorder rather than delay are more likely to have persisting difficulties.
Phonological Awareness Skills

• Order of Acquisition:
  - Identification of words as units in a sentence
  - Identifying words by blending syllables and sounds
  - Clapping out syllables
  - Rhyming
  - Identifying initial, final and medial sounds in words
  - Clapping out individual sounds
### Norms of P.A

Adapted from Sutherland Phonological Awareness Test, Roslyn Neilson, 1995

<table>
<thead>
<tr>
<th>Skill</th>
<th>5yrs</th>
<th>5-6yrs</th>
<th>6-7yrs</th>
<th>7-8yrs</th>
<th>8-9yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syllable Identification e.g. How many syllables in banana?</td>
<td>Emerging</td>
<td>Mastered</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identifying rhyming words e.g. does 'cat' rhyme with 'bat'</td>
<td>Emerging</td>
<td>Mastered</td>
<td></td>
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<tr>
<td>Production of rhyming words (e.g. Tell me another word that rhymes with 'me')</td>
<td>Emerging</td>
<td>Mastered</td>
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<tr>
<td>Identifying the first sound in words e.g. the first sound in 'dog' is 'd'</td>
<td>Emerging</td>
<td>Mastered</td>
<td></td>
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</tr>
<tr>
<td>Identifying the last sound in words</td>
<td>Emerging</td>
<td>Mastered</td>
<td></td>
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<tr>
<td>Breaking up small words into sounds</td>
<td>Emerging</td>
<td>Mastered</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Blending individual sounds to make words</td>
<td>Emerging</td>
<td>Mastered</td>
<td></td>
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<tr>
<td>Ability to take away the first sound in words e.g. 'what does 'fish' say without the 'f'</td>
<td>Emerging</td>
<td>Mastered</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Breaking up words containing blends into individual sounds e.g. 'snake', 'pram'</td>
<td>Emerging</td>
<td>Emerging</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blends: Delete First sound e.g. 'what does 'snake say without the 's'</td>
<td>Emerging</td>
<td>Emerging</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Blends: Delete 2nd sound (e.g. What does 'pram' say without the 'r'?)</td>
<td>Emerging</td>
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</tbody>
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Language Development

- Children vary in their development of speech and language and there is a wide range of normal development. It important to note that no two children will develop the same.

- Typically, simple skills need to be reached before the more complex skills can be learned.

- There is a general age and time when most children pass through these periods.
By age 4

• Follows three step auditory directions e.g. ‘get your boots put them on then go outside’

• Can understand location words (prepositions) ‘under’ ‘behind’ ‘next to’ and ‘in front of’

• Knows at least 6 colours

• Understands words for basic shapes e.g. circle, square, triangle

• Understands and remembers details of a simple story
By age 4

• Says sentences of four or more words in length

• Answers ‘who’, ‘how’ and ‘how many’ questions

• Uses language to report on past events e.g. ‘I painted a picture’ and predicting e.g. ‘I’ll play with my toys’

• Uses regular past tense e.g. climbed, walked

• Tells simple stories in a logical order
By age 5

• Understands longer directions e.g. ‘get your bag, take out your shoes and put them upstairs’

• Understands number concepts all, some, none, more

• Understands many descriptive words ‘soft/hard’ ‘long/short’ ‘top/bottom’

• Defines objects by use e.g. you eat with a fork and can tell what objects are made of e.g. jumper made of wool
By age 5

• Should be starting to use long complex sentences e.g. ‘teacher was cross because I didn’t do my homework’

• Defines words e.g. ‘a cow is an animal and lives on a farm’

• Repeats the days of the week in sequence

• Can explain and answer questions e.g. ‘what would you do if..’

• Uses words that describe time e.g. ‘first’, ‘last’, ‘next’
Aged 6

- Understands time concepts such as 'after/before, now, tomorrow, seasons' etc.
- Beginning to understand humour in jokes and riddles
- Understands more detailed vocabulary such as 'ankle', 'eyelid', 'wrist', 'kiwi', 'lemon'
- Understands more complex concepts such as 'whole, half, few, many, most'
- Follows instructions given to a group
- Follows 3+ part commands consistently e.g. 'put on your soccer shorts, get your boots and your bottle of water ready', 'go to my room, get my bag and take out my purse'
Aged 6

- Uses comparatives and superlatives e.g. ‘this one is heavier’, ‘I am the tallest’
- Can tell a connected story about a picture or event
- Asks ‘why’ and ‘how’ questions
- Uses descriptive words such as ‘full’, ‘empty’, ‘more’, ‘less’, ‘loads’, ‘lots’
- Knows who carries out an action e.g. ‘singer’, ‘teacher’, ‘driver’ etc
Aged 7

- Understands difference between 'left' and 'right'
- Beginning to understand figurative language e.g. 'Pull up your socks'
- Understands longer sentences and more complex language e.g. 'The person who gets the red ball first is the winner'
- Beginning to understand more abstract concepts e.g. 'guilty', 'pretend'
Aged 7

- Has grasped and is using most grammatical rules e.g. 'He fell/falled, mice/mouses, theirs/thems etc.

- Is using 'joining words' to make sentences/tell a story e.g. 'because, whenever, until, if, instead'

- Tells stories which have a beginning, main point and focus, and an end with a resolution e.g. can explain how to play a computer game or the plot of a film they've seen

- Learning and using new words from school and from reading

- Names opposites
Aged 8

- Can relate rather involved accounts of events many of which occurred at some time in the past
- Complex and compound sentences should be used easily
- Rare lapses in grammatical structures
- Should be reading with considerable ease and writing simple stories
- Can carry on a conversation at almost adult level
- Has well developed time and number concepts.
Aged 9-11

• Should be able to carry out 4+ level commands

• Narratives should have a logical beginning, middle and end and development of characters, use of coordinating and subordinating clauses

• All grammatical markers should be used correctly including irregular verb tenses, adverbs and adjectives

• Should be using all sentence types including complex structures like passives e.g. the boy was followed by the cat
Developmental Norms for Morphology-Brown’s Stages

- Present Progressive verb ‘-ing’ (no aux verb) 19-28 months e.g. ‘mammy driving’
- Preposition ‘in’ 27-30 months
- Preposition ‘on’ 27-30 months
- Regular plural ‘-s’ e.g. ‘boats’, ‘cats’ 27-33 months
- Irregular past tense e.g. ‘came’, ‘sell’ 25-46 months
Developmental Norms for Morphology-Brown’s Stages

- Possessive ‘s e.g. ‘mammy’s car’ 26-40 months
- Uncontractible copula ‘he is’ 27-39 months
- Articles ‘a’, ‘the’ 28-46 months
- Regular past ‘-ed’ e.g. ‘climbed’ 26-48 months
- Regular 3rd person ‘-s’ e.g. ‘Katie hits’ 26-48 months
- Irregular 3rd person e.g. ‘does’, ‘has’ 28-50 months
Developmental Norms for Morphology-Brown’s Stages

- Uncontractible auxiliary e.g. ‘he was running’ 29-48 months
- Contractible copula e.g. man’s big, man is big’ 29-49 months
- Contractible auxiliary e.g. ‘daddy’s drinking juice’ daddy is drinking juice’ 30-50 months
Semantic Norms of Development - Concepts

- In/on
  Big/little 2yrs

- Under 2.5 yrs

- Colours 3yrs

- Simple descriptive concepts e.g. heavy/empty 3.5yrs

- In front/behind/beside 3.5yrs

- Descriptive concepts e.g. long, short 4 yrs
Acquisition of Concepts

- Quantity concepts (number)
- Texture concepts (soft, bumpy)
- Simple opposites e.g. big/small, long/short, wet/dry
  4.5 yrs
- Temporal concepts e.g. night/day
- Sequential concepts e.g. first/next/last
- Adds up to 5
- Right/left
- Knows coin values
- Complex temporal concepts e.g. morning/afternoon/months/days
  5-6 yrs
# M.L.U. Norms (Mean Length of Utterance)

<table>
<thead>
<tr>
<th>Age</th>
<th>Average sentence length</th>
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<tbody>
<tr>
<td>4 years</td>
<td>7 words</td>
</tr>
<tr>
<td>5 years</td>
<td>8 words</td>
</tr>
<tr>
<td>5 years 6 months</td>
<td>9 words</td>
</tr>
<tr>
<td>6 years</td>
<td>10 words</td>
</tr>
<tr>
<td>6 years 6 months</td>
<td>11 words</td>
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<tr>
<td>7 years</td>
<td>12 words</td>
</tr>
<tr>
<td>7 years 6 months</td>
<td>13 words</td>
</tr>
<tr>
<td>8 years</td>
<td>14 words</td>
</tr>
<tr>
<td>8 years 4 months</td>
<td>15 words</td>
</tr>
</tbody>
</table>

Language sample 200 words +
Developmental Checklists!!
Workshop

Case Study-J.C. 4 years 8 months

• Decide if client is presenting with language delay or not, with reference to:
  - M.L.U.
  - Concepts
  - Brown’s Stages
  - Vocabulary-nouns and verbs
  - Content
Client Details

- J.C, 4 years 8 months
- Male
- In Junior Infants
- Strong family history of SLT problems—sister attends SLT
- Mother reports aggressive behaviour, getting into trouble in school, “constantly on the go”
Language Sample (RAPT)

1) Hers hugging her teddy
2) Put her shoes on
3) He’s stuck, lock he neck
4) He trying jump hes horsie, jump this
5) Get the mouses
Language Sample

6) Her cut hers glasses, her fall down the stairs
7) Her lifting him in there
8) Going get the cat, his stuck
9) Hurt hes eye, the dog, he get hes shoe
10) Its apples fall down, he could get up in there. Holding up them
Discussion

- M.L.U. = 5.9  Norm = 7-8 words

Areas of difficulty:
- Pronouns
- Present progressive
- Irregular past tense
- Irregular plurals
- Limited vocabulary-nouns and verbs
- Poor sentence structure

Conclusion: Expressive language delay-waitlist therapy
Question Time
???