Measurement of child directed speech: Bridging the gap between research and practice

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Get your jacket!

Where are your shoes?

Be nice to the cat!

Yes, you do have to wear pants!
Measuring CDS in research

- Language samples
  - SALT e.g. MLU, NDW, TNW etc.
  - Counts of specific linguistic targets / opportunities
- Behavioural coding from videos e.g. in time segments
- LENA – adult word count, child vocalisations, turns
Who cares about measurement of CDS?!

- Adults around the child and clinicians alike need to know if they are changing their behaviours in everyday life and maintaining these changes over time.
- If not, then working on CDS will probably not benefit the child in a long term way.
- Therefore it is really important clinicians measure and document CDS and adults too can measure and self monitor the improvements.
Research cf. clinical practice

- Specific aims vs broader aims
- Measurement accuracy vs client satisfaction
- Time and resources

Hypothesis: Mismatch between established research methods of assessing CDS and what is feasible in clinic
Research questions

- How often do clinicians use interventions to optimise CDS?
- How often do clinicians report measuring CDS?
- What measures of CDS are clinicians using?
- What reasons do clinicians state for using these measures?
- What barriers do clinicians perceive in measuring CDS?
Survey / participants

- Ethics approved
- Qualtrics online survey
- Recruitment through NZSTA, SPA, MOE and personal networks
- Potential pool of 4000 clinicians
- Link available April – June 2018
- 3 sections – demographics, perspective on CDS, measurement of CDS
Participants

- 116 responses analysed
- NZ (n=66; 57%) Australia (n=50; 43%)
- All held clinical qualifications and working with children
- Majority n=56 (48%) had over 10 years experience
- Variety of settings e.g. early childhood centres, home, schools
How often do clinicians report aiming to optimise CDS in intervention?

For children with language delay / disorder aged 0-8 years:

- Two thirds of participants reported aiming to optimise CDS half of the time or more (56/84)
How often do clinicians report measuring CDS?

- A third of participants reported measuring CDS ‘most of the time’ or ‘always’ (28/84)
- Aiming to improve CDS is more common than measuring it
What measures of CDS are clinicians using?

- Mainly observations of adult-child interaction (recorded or unrecorded)
  - Analyses of these were mostly informal or checklists
- Interviews / questionnaires also popular
- Some used time sampling from video
- No one used SALT (or similar) on the adult’s language
- One used LENA

N=74
What reasons do clinicians cite for using these measures?

- Clinical information 39%
- Time constraints 32%
- Adult considerations 26%
- Familiar / Available 25%
- User friendly 22%

N=69
What barriers do clinicians experience in measuring CDS?

- Time constraints (38%)
- Adult considerations (22%)
- Psychometric properties (22%)
- Lack of suitable tools (14%)
- SLT lack of knowledge (11%)
- None (8%)

N=73
So is there a match between what’s available from research and what clinicians need?

Answer – sort of!

- The Starling / LENA (or similar technology) will be an affordable solution in time
- Hanen checklists are most suited to clinician needs
  - Psychometric properties have not been reported
  - Must be Hanen trained
Current research at UC Child Language Research group

We are planning to develop tools to measure CDS –
- Based in research as to what is needed at each age
- Psychometrically validated
- Readily available

We will need some SLTs to trial them 2019
If you are interested in helping let us know!
Take home messages

- Consider the importance of measuring CDS accurately
- Partner with us in developing new tools designed for clinical use
- Watch out for automated speech analysis technology!
References


