Building Early Sentences in your language: a service evaluation study of the 'BEST' home language intervention

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BEST is the result of collaboration between Speech and Language Therapy Services in Pennine Care Foundation Trust and Speech and Language Sciences at Newcastle University.

This paper presents the results of a service evaluation of an initiative to address the speech and language therapy needs of pre-school children with language difficulties in a culturally and linguistically diverse community with high levels of social disadvantage.

Children entering school with significant language difficulties are at risk of poor educational, social, and emotional outcomes and these risks are heightened for children living with social disadvantage (Clegg et al., 2005; Law et al., 2009; Lindsay et al., 2007). Currently, few rigorously evaluated intervention programs exist for pre-school children with significant language difficulties and even fewer have been evaluated in languages other than English (Stow & Dodd, 2003).

This initiative aimed to develop and implement a new, theoretically motivated, language intervention for pre-school children with significant language difficulties, which can be delivered in a range of languages and which is acceptable to practitioners and the parents/carers of the community served..

BEST is:

- a specialist level intervention designed for children between 3 and 6 years who have significantly delayed language development.
- delivered by SLTs, SLT Assistants (SLTA) in close partnership with the child's parent(s)/carer(s).
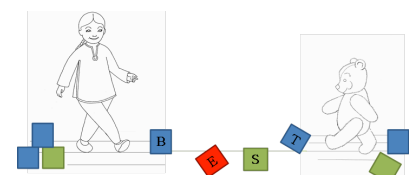
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- delivered individually or in groups, and has been adapted for delivery in a number of languages.

- based on 'usage-based' theories of language acquisition (Tomasello, 2003)

- aims to improve children's use and understanding of two, three and four clause element sentences

- delivered over 16 sessions targeting 16 different verbs in simple sentences

- is delivered using a standardised set of procedures and resources

Key Features of BEST:

- A focus on **INPUT:** the child listens to multiple adult productions of target sentences paired with the relevant actions carried out with toys.

- **OUTPUT** occurs only when the child is ready: the child is not asked to copy adult models but is provided with multiple opportunities to join in when they are ready

- **HOMEWORK** is accessible to parents: simple, attractive and motivating homework activities are provided which do not require little or no literacy abilities

- A focus on **COGNITIVE STRATEGIES**: the nature of the input is controlled such that the distribution and quantity of the target sentences heard, promote the use of cognitive strategies which, in turn, allow the child to develop abstract representations of the grammar of the sentences (Ambridge & Lieven, 2011)..

- Promotes the development of **ABSTRACT GRAMMATICAL REPRESENTATIONS**: this accomplishment is thought to then accelerate future language learning, and so promote spontaneous progress and generalisation after the intervention (Langacker, 2000)..

- Can be **APPLIED TO A NUMBER OF LANGUAGES**: the core principles can be applied to therapy for simple sentences in a number of languages

The Process of Development and Method of Service Evaluation

The work described here constitutes the first steps in the development and evaluation of a complex intervention, and follows the recommendations described in the Medical Research Council Guidance relating to complex health interventions (Craig *et al.*, 2008).

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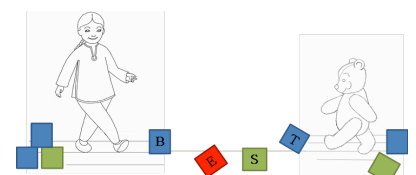
Initial Development

- Identification of difficulty meeting needs of this group of children
- Identification of gap in evidence
- Identification of theory
- Development of therapy approach
- Early 'piloting'
- Development of resources
- Staff Training
- Implementation across clinics

Service Evaluation

- Devise 'progress tracker' scoring number of morphemes and argument structures used
- Evaluate service through
    1. analysis of progress trackers
    2. focus groups
    3. regular meetings with staff for feedback and development

Phase 2 Development

- Review of procedures & materials informed by evaluation
- Development of new resources & manual
- Distribution across clinics
- New Training package to be delivered

Results

Quantitative Results:. Data from 14 children receiving therapy in English and 4 in Mirpuri (children with at least 4 complete 'progress trackers') were subjected to a repeated-measures trend analysis for dichotomous data to determine whether the child had made significant progress in the target structures. All 18 children made significant progress.

All 18 children made significant progress; 15 in both morphology and argument structure use, 3 in either argument structure or morphology.

Qualitative Results: Focus group data from SLTs and SLTAs indicated high levels of acceptability and accessibility of the approach with SLTs, SLTAs and parents/carers

- *"It was really motivating because you could instantly see the results and the impact it was having. Previously you've been running groups and you've done stuff and you've kept doing the same stuff…Because you could see how quickly they have grasped it, it kept you motivated." - Bilingual SLT Assistant*
- *"He picked it up a lot quicker, he was a lot happier doing it 'cos it was quite visual and it was quick and I think he thought he could achieve it"*
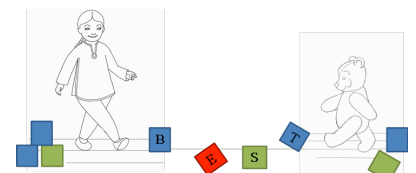
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- *"The first impact when I followed the programme that Sean laid out for me and did it with acting out and pictures, it was fantastic. It was really amazing"*
- *"I was getting reports that he was starting to talk to his parents...within a few weeks he was creating his own sentences"*
- *"...and Dad was like 'So actually can I have some homework and can I take it home?' because he saw him achieving in sessions and he thought I can do that"*
- *"Because it was structured with the family they appreciated that"*

Discussion and Conclusion

- BEST is associated with significant progress in targeted language structures

- Significant progress was achieved by children who received BEST in English and Mirpuri

- Significant progress was achieved by children from monolingual and bilingual backgrounds

- BEST is an accessible and acceptable intervention approach to SLTs, SLTAs and parents

- These results suggest that a theoretically motivated, structured, direct therapy intervention which promotes parent/carer buy-in, and which is delivered in a sufficiently high dosage can promote significant progress in the language development of young children with severe language difficulties.

This service evaluation is the first step in the development and evaluation of a complex intervention (Craig *et al.*, 2008). Further evaluation is necessary to definitively test the efficacy of BEST. Future plans include publication of a standard manual and set of resources and further research to evaluate

- how BEST compares to other interventions

- whether gains generalise

- whether BEST works in wider range of languages

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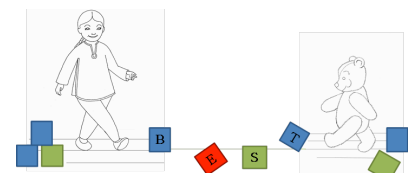
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