Centre for Speech and Language Intervention Research

FACILITATING LINKS BETWEEN RESEARCH AND CLINICAL PRACTICE

Welcome to the CSLIR newsletter; providing a six-monthly update of the Centre's activities and events.

If you would like to receive future copies of this newsletter and/or find out more about the Centre then please visit:

http://www.ucl.ac.uk/cslir

Forthcoming events

BETTER CONVERSATIONS WITH APHASIA ROADSHOW

Project team:

- Suzanne Beeke (UCL, Principal Investigator)

- Firle Beckley (UCL, Research Associate)

- Wendy Best (UCL, Co-Investigator)

- Susan Edwards (Reading University, Co-Investigator)

- Matt Mahon (UCL, Project Officer)

- Jane Maxim (UCL, Co-Investigator)

- Nicola Sirman (UCL, Research Assistant/Sussex Community)

- Kate Swinburn (Connect, Co-Investigator)

Project Update

Our Better Conversations with Aphasia project is now in the closing stages of the race to get our e-learning resource online. The aim of the project is to build a resource for Speech and Language therapists (SLTs) who wish to deliver conversation-based interventions for aphasia. This learning resource can also be accessed by people with aphasia and their families who may wish to learn more about conversation therapy and what it may involve.

Over the last 12 months we have held focus groups with people with aphasia and SLTs to ensure their involvement in every stage of the design process, providing invaluable feedback on the resource as it has developed.

In order to launch the resource we are holding **four FREE roadshow events across the UK;**

⇒ Belfast 30th April

⇒ Plymouth 15th May

⇒ London 23rd May

⇒ Manchester 13th June

You will need to book a place to attend the roadshow, details of how to book along with information about the project can be found at www.ucl.ac.uk/betterconversations/aphasia.

Please also like us on Facebook: Better Conversations Aphasia or follow us on Twitter: BCAphasia.

We hope to see you at a roadshow event soon!

Current project highlights

Nuffield Early Language Intervention Project

Oral language skills in early school years provide an important foundation for the later development of reading comprehension and are therefore critical to educational success.

UCL has teamed up with the Universities of Sheffield and York to evaluate the efficacy of the Nuffield Early Language Intervention programme which aims to improve the language skills of children with

oral language weaknesses. The programme is suitable for children in nursery/ reception classes and aims to develop 3 key areas: vocabulary knowledge, narrative (story telling) skills and listening skills. It was evaluated in a previous study by the same team of researchers. The programme has been published by the children's communication charity I CAN, who will be marketing the programme and training nurseries and schools to deliver it.

The Nuffield Early Language Intervention project is a RCT where approximately 360 children in 34 nursery classes (in Sheffield and London) will be screened on simple measures of oral language proficiency. Children who are identified as having language weaknesses will then be randomly assigned to one of the 3 treatment groups:

1. A 30-week intervention group will receive a language intervention programme starting in nursery classes in April 2013 and continuing for their first 2 terms in Reception class.

2. A 20-week intervention group will receive the same intervention but starting in September 2013 (they will

An evidenced-based oral language intervention programme

therefore receive the intervention during their first two terms in Reception class).

3. A waiting list control group will receive an integrated reading and language intervention (which is known to be effective from a previous study) starting in September 2014.

All interventions will be delivered to children in their nurseries/schools by teaching assistants trained by I CAN. Children in the 3 treatment groups will be assessed on standardised language and reading measures pre- and post- intervention. A cohort of children in the same schools who are a year older than the children in the trial will also be assessed on language measures. These data will be used to explore the extent to which the intervention affects overall levels of language skills in the participating schools.

The study seeks to establish the effectiveness of the Nuffield Early Language Intervention programme in its published form when training is delivered by I CAN. Two other critical aims are to establish whether the 30-week version of the programme starting in nursery classes produces larger effects than a 20-week programme that only starts in Reception class and to explore predictors of response to intervention.

The project team consists of

- Professor Charles Hulme
- Dr Kelly Burgoyne
- Dr Maria Kyriacou (UCL)

- Dr Silke Fricke
- Alexandra Zosimidou
- Liam Maxwell (Sheffield)
- Dr Claudine Bowyer-Crane (York)
- Professor Maggie Snowling (St John's College, Oxford)

Intervention Research in an Educational Setting
Susan Ebbels

I am in the privileged position of having a specific research role (2 days a week) in a specialist school for children with language impairments (Moor House School), a supportive manager and an honorary position at UCL. This means that I work with a group of enthusiastic therapists who are providing regular intensive intervention to a relatively homogeneous group of children and I have the time and resources to be able to plan, analyse and write up projects and support others to begin to carry out their own clinical research.

We thus have an ideal set-up to carry out intervention research, both at a case series and group level. We evaluate methods of therapy we are already using and in order to convert routine therapy into research projects, we manipulate details of the timing of delivery of particular types of intervention for particular children during a school year. Thus, by the end of a school year, the children will have received the same therapy they would have if they had not been part of a research project, but sometimes

in a different order, as dictated by the design of the research project. They may have had slightly more testing (particularly to provide control), and may work more frequently with SLTs who are new to them (for blind assessment), but otherwise they are unlikely to notice much difference between normal therapy and therapy provided as part of a research project.

To date, we have investigated the effectiveness of Shape Coding therapy for teaching grammar (Ebbels & van der Lely 2001; Ebbels 2007; Ebbels, Maric, Murphy et al. submitted, 2013; Ebbels, van der Lely, & Dockrell 2007) and semantic therapy for improving word finding difficulties (Ebbels, Nicoll, Clark et al. 2012; Nicoll & Ebbels in prep, 2013).

This year has seen a change in emphasis, with several therapists wanting to run their own projects. We have run five projects which are now all at the analysis stage. The biggest of these looked at the overall effectiveness of our 1:1 therapy. Progress on every target for every child over one school term was compared with progress on a related area of language which was not targeted (providing within-subject control for maturation and practice effects). Overall the results are highly significant and we now need to look at patterns of progress for children with different profiles and for different areas of speech, language and communication.

As part of this overall project, one SLT took on the area of vocabulary, devising specific tests and therapy

methods for all to use and she is currently analysing the results for her Masters project. Again, the results, while preliminary, look highly significant in terms of the progress made on targeted vs. control words.

The third project looked at the teaching of idioms to 14-15 year olds and compared progress on idioms taught 1:1 with an SLT, idioms focused on in the classroom by the teacher and control idioms not mentioned in any setting. This shows an advantage of 1:1 therapy.

Analyses for the fourth and fifth projects have not yet begun. One is looking at the effectiveness of group therapy for 14-15 year olds, focusing on language vs. life skills and also aims to establish whether children with or without features of ASD benefit more or less from these. The other is the Occupational Therapists' first step into research and is looking at the effectiveness of occupational therapy on improving ball skills. This has been a new area for me, but has shown how the basics of research design remain similar regardless of the specifics of the intervention.

References

Ebbels, S. & van der Lely, H. 2001. Meta-syntactic therapy using visual coding for children with severe persistent SLI. *International Journal of Language & Communication Disorders*, 36, (supplement) 345-350

Ebbels, S.H. 2007. Teaching grammar to school-aged children with Specific Language Impairment using Shape Coding. *Child Language Teaching and Therapy*, 23, (1) 67-93

Ebbels, S. H., Maric, N., Murphy, A., & Turner, G. 2013, submitted. *Improving comprehension in adolescents with severe receptive language impairments: a randomised control trial of intervention for coordinating conjunctions.*

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Nicoll, H. & Ebbels, S. H. 2013, in prep. *The effectiveness of different methods of delivery of semantic therapy for word-finding difficulties.*

Getting into Shape: The Effect of Shape Coding on the Spoken Language Production of Two Men with Chronic Aphasia: Preliminary Results
Pippa Kirby, Carolyn Bruce & Caroline Newton

Shape Coding (Ebbels, 2007) is a visual coding system that has been used primarily with children with Specific Language Impairment, but has the potential to support the language output of people with aphasia. Colours, shapes and arrows are used to represent syntactic categories, phrase types and verb morphology (see figure 1). While

visual coding has been used in a number of studies targeting basic sentence structure (e.g. Webster & Whitworth, 2007), Shape Coding allows the user to work with more complex structures and verb morphology. There is some evidence from a preliminary study that this system may be valuable in improving awareness of sentence structure (Davy, 2011). The purpose of the study reported here is to explore further the use of this system in improving the generation of more complete utterances.

The study involved two men in their fifties with chronic non-fluent aphasia, one of whom participated in the previous study (see CSLIR Newsletter, December 2012). Repeated baseline measures were collected three times before eight sessions of therapy, and included structured (e.g. the Object and Action Naming Battery) and unstructured (e.g. video description) tasks. Post-therapy measures were taken immediately after the programme and three months later. Data were analysed by examining the number of verbs used, the number of arguments included in sentences and the thematic completeness of utterances.

Preliminary analysis of results indicate that, for the individual introduced to Shape Coding, improvements in verb retrieval and sentence generation were observed only in the structured tasks. Marked difficulties with sentence production remained in his spontaneous output. In contrast, the individual who had previously used Shape Coding

showed marked gains in sentence generation with respect to the thematic completeness of utterances and in the production of verbs requiring three arguments. Moreover some of these improvements generalised to spontaneous speech when he made use of the shapes.

Full analysis of the data is on-going but these preliminary findings are positive and suggest that Shape Coding has potential to enable people with agrammatic aphasia to have a greater understanding of sentence structure and therefore to produce more complete utterances.

Figure 1. Shape Coding in use.

References

Davy, H. (2011). *Getting into shape: The effect of Shape Coding on the spoken language production of a man with chronic aphasia*. Unpublished BSc project, London: Division of Psychology & Language Sciences, University College London.

Ebbels, S.H. (2007). Teaching grammar to school-aged children with Specific Language Impairment using Shape Coding. *Child Language Teaching and Therapy*, *23*, 67-93.

Webster, J. & Whitworth, A. (2007). AL: Accessing the predicate argument structure. In S. Byng, K. Swinburn & C. Pound (Eds.) *Aphasia Therapy File: Volume 2*. Hove, East Sussex: Psychology Press.

NEW FUNDING OPPORTUNITY

BAS Initiatives in Aphasia Seed Fund (IASF)

The **British Aphasiology Society** would like to fund *Initiatives in Aphasia* - activities that involve and benefit people with aphasia and their family members/carers. Some examples might be: focus groups, support for events, new initiatives in aphasia, or pilot research. This list is not intended to be prescriptive. Such activities may be led by or organised with the involvement of people with aphasia, and will meet one or more of the following aims:

1. To promote knowledge of aphasia

2. To promote knowledge of speech and language therapy for aphasia, and make its evidence base accessible

3. To promote and draw upon the expertise of people with aphasia

4. To share, discuss and collaborate on research with people with aphasia and their family members/carers

This scheme does **not** fund the purchase of resources for individual clients with aphasia.

Seed funding of up to £1000 will be available per application and can be used to supplement other research/ knowledge exchange funding that the applicants have already secured. There will be two deadlines a year. The BAS Committee reserves the right to decide how many awards it will make in any one year.

The first deadline is **11 June 2013.** For more information and an application form, go to www.bas.org.uk/SeedFund.htm