



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

EVALUATING INTERVENTIONS FOR CHILDREN WITH SLCN: METHODS AND FINDINGS

Wednesday, 21 November, 2012, 3-6pm, followed by drinks reception
Room 118, Chandler House,
2 Wakefield Street, London,
WC1N 1PF

This event will introduce designs

used in evaluating interventions with children with SLCN and give examples of studies and their findings. Presenters will include Wendy Best, Susan Ebbels and Charles Hulme.

Register for tickets at:

<http://cslir2012.eventbrite.co.uk>

Further details of this and future CSLIR events can be found at:

<http://www.ucl.ac.uk/cslir/events>

Current project highlights

Therapists' views on how research influences their practice

Project team: Wendy Best & Anne Edmundson, Psychology & Language Sciences, University College London.

144 Speech and Language Therapists completed our questionnaire asking about the influences on their choice of specific therapy activities and how SLT intervention is informed by the

evidence base in the literature. Respondents work with either adults with aphasia or children with specific speech and language needs. The findings are being analysed for write up. In the meantime here are some preliminary findings and quotes to whet your appetite.

In one question, therapists rated the extent to which they agreed with statements about how they used the results of Randomised Control Trials (RCTs – large group studies comparing the effects of intervention against a control group) and Single Case/Case Series Experimental Designs (SCEDs – single cases or case series where each participant acts as their own control).

A similar proportion of therapists agreed that they used RCTs (29%) and SCEDs (28%) to justify their service to commissioners. Around half (52%) used RCTs to guide

management of individual cases and 40% to plan specific therapy with clients. In contrast, a large majority reported using SCEDs to guide management (85%) and plan specific therapy (82%).

Thus, both these approaches are valued by clinicians, with SCEDs being more widely used to inform the specifics of intervention.

Individual respondents' views were very varied with some more positive about large scale group studies and others highlighting the considerable impact of case series and single case studies on clinical practice.

'The bigger the study numbers the more likely it is to influence what I do'

'Control trials that have bigger participant numbers are more useful in terms of strength and use with commissioners. Also it provides more information on the type of service that we deliver. Case studies are more useful in terms of more specific therapy interventions'

'I do find single case studies a really helpful clinical resource-- I think a move to case series design might be more pragmatic and widen application of findings'

'but I am not convinced that RCT design presents the best way forward for measuring efficacy of therapy when aphasic patients are so diverse and therapy is tailored to specific difficulties'

'Single case studies, either published or presented during presentations, seminars and conferences tend to be enthusiastic, encouraging and presented in practical detail. A child on my caseload comes to mind and I am keen to try a specific line of therapy'

Gift vouchers have been sent to the prize winners (selected at random by the administrator from those who e-mailed her to enter - please note we cannot link respondent & response!):

Jo Burke, Speech and Language Therapist, Community Intermediate Care Service, Lightwood House, Sheffield. Creea Neeson, Speech & Language Therapist, Belfast Trust.

Professor Rosemary Varley joins UCL

We are all delighted to welcome Professor Rosemary Varley to the department of Language and Communication here at UCL. Here she offers a summary of her current work and interests.

'I have two main areas of research. I

am interested in developing accounts of aphasia and apraxia of speech from the perspective of neuroscience. This involves applying what is known about brain mechanisms in processing various types of information and applying these ideas to speech and language. For example, in our work on apraxia of speech (e.g., Varley & Whiteside. 2001. What is the underlying impairment in acquired apraxia of speech? *Aphasiology*, **15**, 39-49), we move away from the traditional view that speech production involves accessing movement plans for individual sounds and combining them to form words. Instead, we propose that movement plans for whole words and utterances are stored. This may account for the observation that some utterances are preserved in people with moderate and severe apraxia. We are exploring similar approaches to grammatical behaviour.

We seek to apply these ideas to therapies for aphasia and apraxia. In particular, I am interested in developing computer therapies that allow a person with aphasia/apraxia to administer intensive therapy.).

Together with colleagues in Sheffield, we produced the Sword software program for use in apraxia therapy (<http://www.propeller.net/sword.htm>).

My second research area is using the evidence from severe aphasia to explore claims that language is necessary for other areas of cognition such as theory of mind and calculation. If this is the case, then people with severe aphasia would have difficulties in a range of intellectual domains. While it is true that *some* people do have difficulties beyond speech and language, this is not the case for all individuals with severe aphasia. We identify people who show relatively intact ability in an area (for example, an ability to correctly calculate the result of $7 - 2$ and $2 - 7$), despite being unable to discriminate the difference between 'the man killed the lion/the lion killed the man'. This area of research has attracted some media interest (for example, <http://news.bbc.co.uk/1/hi/sci/tech/4265763.stm><http://plus.maths.org/content/os/issue44/features/varley/indexpl.us>). Our most recent publications in this area report on the ability of people with aphasia to complete a navigation task (Bek, et al. 2010. Language and spatial representation: evidence from

severe aphasia. *Journal of Experimental Psychology: Learning, Memory and Cognition*, **36**, 3, 646-658), and to solve communicative problems (Willems, et al. 2011. Communication without a functioning language system. *Neuropsychologia*, **49**, 3130-3135). We have also begun to explore how this research might assist in developing new interventions for aphasia (Byrne, & Varley. 2011. From mathematics to language: a novel intervention for sentence comprehension difficulties in aphasia. *Journal of Neurolinguistics*, **24**, 173-182).

Speech Sciences graduate awarded British Aphasiology Society's Student Project Prize

Helen Davy, a UCL BSc Speech Sciences Graduate (2011) has been awarded the Student Project Prize of the British Aphasiology Society for her project entitled 'Getting into shape: The effect of Shape Coding on the spoken language production of a man with chronic aphasia'.

Her project was supervised by Caroline Newton and Carolyn Bruce (Psychology and Language Sciences). This is a prestigious national prize, awarded to the best student project in the UK on any topic relating to acquired aphasia. This is the second year in succession that a UCL BSc Speech Sciences student has been awarded this prize (last year's winner was Justine Green).

ABSTRACT

Background: Agrammatic aphasic speakers have problems communicating effectively in everyday situations. A treatment programme called Shape Coding (Ebbels, 2007) has been developed to teach grammatical morphology to children with SLI. It codes grammatical morphemes in shapes and colours therefore providing visual scaffolding for sentence production. For the present study the efficacy of the programme for one chronically agrammatic speaker with Broca's aphasia, SA, was tested. Aims: The aim of this study was to investigate whether Shape Coding (Ebbels, 2007) could improve the verbal output of a chronically agrammatic speaker. This goal was explored under

three research questions: (1) ability to produce more complete sentences in structured tasks, (2) generalization to functional communication, and (3) maintenance of training effects over time.

Methods and Procedure: Shape Coding was used to train one man with Broca's aphasia, the effectiveness was evaluated following repeated assessments. SA was tested using pre-therapy and three post-therapy measures (immediately, three months and seven months post-therapy). Measures included tests of word retrieval by the Object and Action Naming Battery (OANB) and of sentence production by the Thematic Roles in Production (TRIP). Narrative speech was analysed, and functional communication was measured by the Amsterdam-Nijmegen Everyday Language Test (ANELT).

Outcomes and Results: There was improvement on the thematic completeness of utterances, the number of verbs used and the number of arguments included. SA also reported significant improvement in some communicative situations, as observed on the CETI. The improvements did not

generalise to tests of functional communication or less structured tasks, e.g. narrative assessments or sentence generation tasks. Testing with shapes present seven months post-therapy revealed several improvements however, these were not found to be significant.

Conclusions: Treatment with Shape Coding resulted in varying performance across assessment tasks. Reports from SA's speech and language therapist and evidence of improvement suggests that greater intensity and duration could have resulted in more significant improvements.

CRIDE report on 2012 survey on educational provision for deaf children in England

An update from Merle Mahon (UCL)

In 2012, the Consortium for Research into Deaf Education (CRIDE) carried out its second annual survey on educational staffing and service provision for deaf children. The report sets out the results of the survey for

England and is disseminated via the websites of the National Deaf Children's Association NDCS <http://www.ndcs.org.uk> and the British Association for Teachers of the Deaf BATOD <http://www.batod.org.uk/index.php?id=/publications/survey/CRIDE2012.pdf>. The findings are thus easily available to all stakeholders.

The CRIDE reports for Wales, Scotland and Northern Ireland will be available on the NDCS and BATOD websites soon.



Project team: Suzanne Beeke (UCL, Principal Investigator), Firlie 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 over half way through its 1-year schedule.

The aim of the project is to build an online therapy resource and learning tool for Speech and Language therapists (SLTs) who wish to deliver conversation-based interventions for aphasia. This learning resource could also be accessed by people with aphasia and their families who may wish to learn more about conversation therapy and what it may involve.

Since the project started in March 2012, we have held a series of focus groups with people with aphasia in conjunction with Connect, one of our project partners.

These focus groups have helped us gain valuable insight into the needs of people with aphasia when accessing websites and the information they require.

We are also involving SLTs in the design and content of the online resource. We are asking SLTs working in the South East of England to complete our online survey, which can be found at <https://opinio.ucl.ac.uk/s?s=1942>
 1. This survey looks into SLTs current practice around conversation therapy, preferred methods of learning and approaches to continuing professional development.

In addition to the online survey, we are running face to face focus groups with SLTs at UCL. We are very keen to involve more SLTs in these groups, so if you would like to participate please contact Nicola at n.sirman@ucl.ac.uk.

We will be launching the online resource at three roadshow events early next year: Newcastle, Plymouth and London. We will also be presenting a poster at the UK Stroke Forum in Harrogate in December so do come and say hello if you are there! We have a project website, blog, Twitter and Facebook page where you can keep updated with the project as it develops, please see the website www.ucl.ac.uk/betterconversation/saphasia/

Communication Interventions for Pre-school Deaf Children Stage 3:

Initial Results from Online Survey



Rachel Rees¹, Merle Mahon¹, Rosalind Herman², Caroline Newton¹, Josephine Marriage³

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Background

While appropriate amplification is undoubtedly important in enhancing deaf children’s access to spoken language, active family involvement in intervention programmes is also a key predictor of language outcomes (Moeller, 2000). Intervention with families of pre-school deaf children includes orientation to and maintenance of amplification devices, parent counselling and family administrative support as well as interventions that directly address speech and language development through interaction between parent/carer and child. Our study focuses on the latter. Pilot survey work indicated that the main approaches used by professionals in the UK, engaging in this kind of

intervention, were Auditory Verbal Therapy (<http://www.agbell.org>), Hanen (<http://www.hanen.org>), guidance from the Monitoring Protocol (<http://www.education.gov.uk>) and Parent-Child Interaction Therapy (Kelman and Schneider, 1994). At present it is not clear how professionals may be combining and implementing these and other approaches in terms of the specific strategies they encourage parents to use and how they encourage parents to adopt them.

Expert Review of Questionnaire

An online questionnaire was developed. The first part of the questionnaire was designed to gather information about the background of the professional concerned, the approaches that best informed their practice and their role and caseload. The second part was designed to gather information about intervention practices in terms of strategies parents were encouraged to use and the methods by which they were encouraged to adopt the strategies.

Twelve experts in the field took part in an expert review of the first draft of the questionnaire.

Feedback was generally positive. Minor suggested amendments were constructive and led to revisions. The final version was sent to relevant professionals in the UK.

Initial Results: Professionals and Approaches

Completed questionnaires were returned from 120 professionals engaged in communication interventions: 2 auditory verbal therapists; 1 learning support assistant; 70 speech and language therapists; 47 teachers of the deaf.

Professionals were asked to rate the degree to which approaches informed their practice.

Percentage main approaches included: parent child interaction therapy (35%), Hanen (35%), guidance from monitoring protocol (23%), other (7%) and auditory verbal therapy (5%)

Professionals were also asked how often they would encourage a parent to adopt different strategies.

EXAMPLES of high agreement: Strategies that over 85% of professionals would encourage parents to adopt 90-100% of the time:

- **Use naturally occurring situations as opportunities for communication**
- **Respond positively to all the child’s attempts to communicate**
- **Engage in activities that encourage joint attention**
- **Use words and referents alongside their meaning to help link words with meanings**
- **Encourage all members of the family to interact with their deaf child**

Future Directions

Further analysis of the results is in progress. We plan to organise focus groups of academics and practitioners, with all professions and approaches represented, to discuss the findings of the project and the theoretical rationale of the strategies.

References

Kelman, E., Schneider, C., 1994. Parent-child interaction: an alternative approach to the management of children’s language difficulties. *Child Language Teaching and Therapy* 10, 81–96.

Moeller, M.P., 2000. Early intervention and language development in children who are deaf and hard of hearing. *Pediatrics* 106:3, e43.