

Impact template (REF3a)

Institution: University of Sheffield

Unit of Assessment: 28B - Modern Languages and Linguistics: Linguistics

a. Context

Staff within this unit (part of the Department of Human Communication Sciences) carry out phonetic, psycholinguistic and interactional linguistic research with a range of populations. These include: children with developmental speech difficulties and autistic spectrum disorders; typically developing children; adults with language difficulties (e.g. aphasia) and speech difficulties (e.g. dysarthria) arising from stroke or traumatic brain injury, as well as typical adult speakers. The main users of our research are listed below:

- *Child* clients and their speech and language therapists (SLTs) in the UK and overseas
- *Adult* clients and their SLTs and in the UK and overseas
- Nursery, primary and secondary school teachers working in the area of spoken and written language and communication impairment
- Charities / policy makers working with speech, language and communication needs (SLCN)
- Pre- and post-qualification SLT students

The types of impact are:

- Influence on SLT practice with children and adults who have SLC needs
- Provision of software for clients / SLT service users
- Influence on policy making and implementation
- Continuing professional development for SLTs and teachers
- Influence on SLT education nationally and internationally

b. Approach to impact

Commitment to impact has always been integral to research in HCS, which has benefitted people with communication disorders and their families, as well as professional practitioners. The HCS approach is supported by the University and Faculty, where HCS is represented by our Knowledge Exchange champion (Cunningham). Examples below demonstrate how HCS has sought and benefitted from funding available internally and within the NHS to develop pathways to impact.

Involvement of users (practitioners, clients, charities) in research design, implementation and evaluation. One example is a collaboration with ICAN - the children's communication charity. ICAN supports the development of speech and language skills in all children, including those children with impoverished language. Clegg and Stackhouse were invited to evaluate 'Primary Talk' and 'Secondary Talk', national training packages aimed at helping schools to support children's speech, language and communication needs. ICAN reports the impact of these programmes on their website with reference to Sheffield's evaluations. (See Case Study)

Publications targeted at practitioner and education markets. Three examples illustrate the involvement of commercial publishers in facilitating impact of the research on SLT practitioners.

(1) *Stackhouse & Wells psycholinguistic framework book series.* This framework is taught on all UK SLT qualification programmes and also internationally. It is used widely by practitioners working with children who have speech difficulties. The key resource is a book series published by Wiley. The resulting impact is described in the 'Children's speech and literacy difficulties' Case Study.

(2) *Ethics in Speech and Language Therapy.* Authored by Body (HCS) & McAllister (Queensland Medical School) and published by Wiley-Blackwell in 2009, it is the first book-length treatment of the topic. "*This is really thought-provoking - far from a dry, dull book about ethical theories and principles . . . this book is an excellent resource for helping us think more deeply about our work-related ethical challenges.*" (Review in *Speech & Language Therapy in Practice*, 1 July 2011).

(3) *The Visual Analogue Self Esteem Scale (VASES,* Brumfitt and Sheeran, 1999; 2nd edition 2011), published by Speechmark (originally Winslow Press, Oxon). Brumfitt's programme of research into the psychosocial effect of losing communication following a stroke led to the development of VASES as a tool to evaluate it. The sales figures (604 units @ £65 to 12/2012) are indicative of the role that VASES now plays in a range of clinical contexts. For example, in the SLT

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Department of Rotherham Hospitals, VASES is administered shortly after the stroke and again 6 months later in order to inform staff about patient well being.

Working with commercial partners. The VIVOCA2 (Voice Input Voice Output Communication Aid) project aims to produce a device which will assist spoken communication for people with severe speech impairment (dysarthria). The concept originated with Cunningham and university colleagues, who had expertise in speech recognition and user-centred design. They came up with the concept but needed commercial partners to help develop hardware for the device. The partners include Barnsley Hospital Assistive Technology team (NHS); Toby Churchill Ltd. (communication aid supplier); El Pedium (speech technology company) and Medipex Ltd (IP management knowledge transfer company wholly owned by Yorkshire NHS trusts). Contact with Toby Churchill was made through their MD. El Pedium Technology, a small local speech technology start-up, was invited to join the team having previously contacted the University with a view to collaboration. Medipex joined the team under an agreement with Barnsley Hospital to assist with commercial/IP issues, having worked closely with the Faculty's Healthcare Gateway on previous projects. Evaluation of a prototype with users is approaching completion. Toby Churchill Ltd is committed to exploring the potential of the proposed product. Demonstrator systems will be shown to potential buyers and prescribers during Winter 2013-14. If the evaluation and feedback from demonstrators is positive, a product may be launched before the end of 2014.

Collaborations within the University. Our pathways to impact have involved the establishment of multidisciplinary teams based within other units in the University. For example, Cunningham has been seconded for 2 days p.w. throughout the census period to work in the School of Health and Related Research (ScHaRR) Rehabilitation and Assistive Technology group and the Speech and Hearing group in the Department of Computer Science, giving rise to projects such as VIVOCA2.

Participation of practitioners in research-led postgraduate programmes. Uniquely among comparable UK departments, HCS researchers (Howard, Stackhouse, Wells, Perkins) have developed a suite of specialist programmes for qualified and experienced practitioners, from the UK and overseas, who work with children's speech and language difficulties. These include the only such course in the world in the area of cleft palate studies. In any one year, c. 60 qualified/experienced SLTs and special needs teachers enrol on these PGT courses. Most continue to work alongside their study. Each year around 30 students complete a master's dissertation, which usually involves conducting a research project in their workplace, e.g. a cleft palate SLT clinic or a primary school. HCS staff also supervise c.30 PhD students, the majority being practising SLTs or teachers. HCS research thus impacts on the lives of people with communication difficulties, as these practitioner researchers apply their newly acquired knowledge. In the past, impact strategy has been largely implicit, yet there have been excellent examples of promoting impact on which to build future strategy. A cornerstone of HCS success has been its policy of appointing staff who are committed to making a difference. Two recently appointed ECRs already have a track record of research involving users: Muskett - SLT services for children on the autistic spectrum; Rutter - voluntary organisations for clients with Parkinsons. Wilkinson, recently recruited to a chair at HCS, has a high profile track record of research with families of people with aphasia, identifying ways in which interpersonal communication can be optimised in the face of limited linguistic resources. Internal promotions recognise staff with demonstrated commitment to user involvement. For example, Howard, promoted to a personal chair in 2012, established our specialist postgraduate cleft palate programme for SLTs.

HCS researchers use a range of mechanisms to promote impact amongst a diverse community of practitioners, service users and policy makers. One notable success has been the journal *Child Language Teaching and Therapy*, edited since 2008 by two HCS academic staff, which is regularly read by SLTs and teachers. According to the most recent publishers' report, in 2012-13 77,655 individuals accessed the CLTT web-site, from 179 countries, and 55,168 electronic versions of papers were downloaded: "An important resource for anyone who works with or is interested in children's language difficulties." (*The Times Higher Education Supplement*). HCS staff have organised meetings to disseminate research to users, for instance the conference *Children's Language and Communication Needs: Evaluating Intervention in Schools*, held in October 2011.

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c. Strategy and plans

HCS will develop the delivery of impact to users in response to the changes in the NHS and education services, which are having major effects on SLT and special education provision. This requires a strategic approach to impact, discussed at a staff away day in 2013 and by the HCS Research Committee. Impact priorities identified include: (a) to build impact into project plans and to monitor the impact of research; (b) to identify possibilities for the creation of shared systems to facilitate accessible dissemination of outputs to non-academic beneficiaries; (c) to fully support and incentivise staff in promoting the impact of their research, continuing to involve *all* academic staff, including clinical and university teachers, in delivery of research impact.

Plans for meeting the goals

(a) *Nurture effective relationships* with relevant stakeholders to raise awareness of the mission and outputs of HCS. An excellent opportunity is afforded by the regional SLT 'hubs' recently instigated by the Royal College of Speech and Language Therapists. The Yorkshire and the Humber hub, via the local LTB, has funded HCS (£14k) to organise meetings of SLTs from the NHS, independent practice, charities and universities in 2013-14 to stimulate collaboration in the production and dissemination of evidence to support clinical practice.

(b) *Promote user engagement* in the design of research and impact activities, to ensure that these are appropriately targeted. Example: Rutter collaborates with the Sheffield branch of Parkinson's UK, which is attended by individuals with Parkinson's Disease and their families. At their monthly meetings he shares knowledge about speech therapy for PD and research taking place at the University. In future, members will have the opportunity to participate in projects and focus groups to discuss user priorities for research.

(c) *Make research outputs accessible* to lay public, policy makers, industry, professional bodies and practitioners by reworking key research outputs into a range of accessible formats. Re-launch the HCS website to promote impact e.g. adding social media components and making fuller use of the White Rose Repository for online versions of published papers, in line with guidance from RCUK to improve access. Disseminate research-based practice via Youtube and apps direct to clients / families, as well as via SLTs, e.g. through parent websites. Communicate research to SLTs and other professionals via their websites and special interest groups (see case studies). Package research findings for practice into assessment and intervention programmes that can be marketed and evaluated (for example, Howard and Wells currently supervise PhD students who are devising and implementing speech assessment procedures for children with cleft palate in the following languages: Amharic, Arabic, Farsi. The procedures will be published over the next 1-3 years). Stage impact events e.g. courses, workshops, research seminars, small conferences. Further develop in-service training in programmes derived from HCS research, interfacing with current PGT module delivery (example: Introduction of postgraduate specialist MSc in acquired communication disorders, from 2014).

(c) *Support staff* with a system of mentoring to make more use of the media training provided by the university. Document the causal pathway of the impact of HCS research and raise the profile of impact within HCS by formalising the evaluation of impact into the annual staff review process (i.e. SRDS); develop a shared template for impact evaluation and recognise impact activity more explicitly in the HCS workload allocation model.

d. Relationship to case studies

Children's speech and literacy difficulties: influencing professional practice. This case study illustrates the impact of HCS research on SLT training and practice. It exemplifies our strategy of targeting publications at practitioner and student practitioner audiences, and promoting the research nationally and internationally through continuing professional development courses in health, education, and independent sectors. ***Widening opportunities for socially disadvantaged children through language and literacy support.*** This case study illustrates the mechanisms whereby effective relationships with stakeholders have been nurtured over a fifteen year period. Research foci have been identified and developed jointly with practitioners, in this case mainly teachers. In the early stages the collaboration was around research question formulation and study design; at later stages it ensured the impact of the research by the integration of the findings into the practice of teachers and teaching assistants, as well as adoption by key local and national organisations.