## iCARE conference

Paul Simpson reports from the final iCARE conference held at the University of Leuven

The conference was opened by the coordinator of the project through its four-year life, Professor Astrid van Wieringen. She summed up the history of the project (see page 36 of the September 2017 magazine for more information) and spoke about the history of the University of Leuven, going back to 1450, in whose magnificent buildings it was taking place. She drew attention to the four pillars of the project – whose overall aim was 'inclusion in a noisy society' – which would be the theme of the two-day event – communication, acoustics, remediation and elearning.

The opening lecture was given by Professor Guido Lichtert who was possibly giving his last public presentation before his retirement. A former President of FEAPDA, he spoke about the different definitions of inclusion and referred to the 1994 Salamanca statement. He highlighted the difference between inclusion and integration. Drawing on his professional career he stressed the crucial role of communication and regretted examples where he had seen parents and children not able to communicate with each other. Moving to the present day he talked about a concept familiar in America called 'audism' - similar to racism and referring to attitude to deaf people. He called for more collaborative working and also the avoidance of what he called 'deafism' where deaf people have negative views of and interactions with hearing people. He called for a mandatory gualification for Teachers of the Deaf in Belgium where he has worked throughout his career.



Professor Guido Lichtert

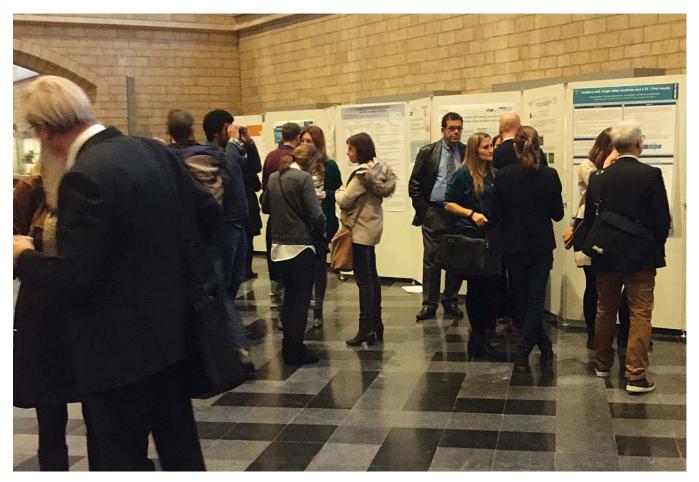
This was followed by a panel discussion to which several of the 'fellows' – the PhD students who had been working on a range of topics within the project over the last four years – contributed from their particular area. The discussion focused on emerging communication and improving inclusion and touched on technology, the importance of the environment, the effects of and research into single sided deafness including for those with meatal atresia and the value of data logging. Software is currently being developed to monitor automatically 'gaze' between parents and their children – a crucial element in understanding developing communication.

The next speaker was Birgitte Sahlen (from the University of Lund in Sweden) who discussed language disorder in children with cochlear implants. Her research shows that 20-30% of children with CIs had language disorder whereas for hearing children the figure was 5-8%. It is not related to the degree of hearing loss. It leads to depressed educational outcomes and can affect the development of socio-pragmatic skills.

In the course of her wider research she also looked at the effects of teachers with a dysphonic (eg hoarse) voice and found that it led to less accurate comprehension by children, more uncertainty in interaction and a more negative attitude to the teacher in question.

The next presentation was on Cued Speech and presented by Brigitte Charlier, the Director of the 'Centre Comprendre et Parler' and the Université Libre de Bruxelles. The presentation was a strong defence of Cued Speech and its effectiveness using research to underline its value and debunking some myths. She demonstrated that brain imaging showed that the same areas of the brain are stimulated by Cued Speech as by audition alone. She pointed to the number of children with Cls failing in mainstream and returning to special schools in Belgium and stated that having a Cl does not take away the need for Cued Speech – and not only in the primary years – throughout the young person's educational career.

Following this we moved to a quite different topic – acoustics. The always engaging Carsten Svensson from Ecophon, based in Sweden, summarised the overall importance of acoustics and highlighted its complexity where schools are concerned. Acoustics have implications for health, safety, communication, the economy, social interaction, intellectual development and joy – quality of life. Excessive noise and poor acoustics can have adverse effects on children in the areas of memory, reading, attention, letter recognition and behaviour. The effects can strain and stress a teacher's voice. He highlighted all the steps that can be taken to alleviate poor acoustics concentrating on the four areas of: transmission of sound, absorption, reflection and diffusion – including a



consideration of absorbent materials, ceilings, wall pads and other measures to reduce reverberation and reflection of sound.

Finally, he quoted Einstein who said "I never teach pupils; I only attempt to provide the appropriate conditions in which they can learn."

This was followed by a discussion about technological solutions to these problems and a general consideration of possibilities to improve inclusion (co-ordinated by Janina Fels from the University of Aachen in Germany).

Day 2 started with a lecture in which the presenter, Ann-Charlotte Gyllenram of the Swedish charity for children with CIs. Barnplantorna, declared firmly that her talk would not predominantly follow the research orientation of the previous day although this did not mean that she did not value research! This presentation would be focused on real life examples of children and young people with cochlear implants. She highlighted a young child identified at birth a few years ago and bilaterally implanted and a young person in his late 20s who had been diagnosed late and only had one implant. Both were progressing well. She highlighted the crucial role of parents and the importance of AV therapy. Good mainstream teachers are also a prerequisite. She was less convinced of the importance of a Teacher of the Deaf associating them in her mind with the schools for the deaf (in Sweden) where she felt children with cochlear implants did not thrive as they were not auditory environments. Predictors for success include early diagnosis, early

auditory intervention, a rich language environment, good schools and teachers, family support and grit – an ability to cope with and grow out of challenges. She noted that deaf children need at least three times the exposure to new vocabulary as hearing children experience.

She stated that we should prepare for the majority of deaf children being able to hear with CIs from under the age of six months, cochlear implantation for unilateral hearing loss, streaming via implants, fully implanted implants and a much higher percentage of deaf children in mainstream schools.

She regretted the fact that there is little evaluation in Sweden of neonatal screening and there continues to be what she regards as excessive funding of special schools. Sign language is available to all parents.

She ended by saying that low expectations are the enemy.

This was followed by a stimulating discussion about executive function and its relationship to language. It was agreed that the one depends on the other. There was some heated discussion about the use of research which was too old to reflect the fact that most profoundly deaf children now have cochlear implants. It was noted that deaf children of deaf parents have good executive function – this is because where the deaf parents are using sign language they are fully immersing the child in a complete language whereas even signing hearing parents are not usually doing that. The key is support for language development. It is possible to 'train' executive functions and, apart from drama and role play, there are computerised games which specifically target these aspects of development.

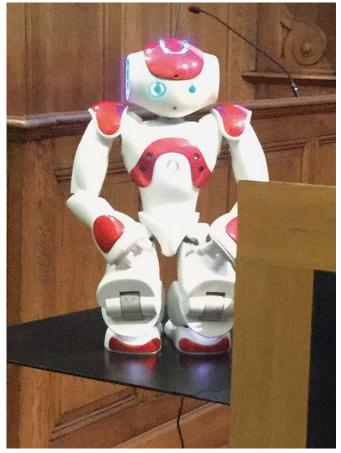
The next session lightened the atmosphere with a robot – Sam the robot – which has been developed to support auditory rehabilitation. The robot's voice was developed through synthesising different gender voice characteristics. It is used to support the development of children with CIs who often only distinguish voices through its pitch. Using a robot allows consistency and reproducibility. It is attractive and engages children. Its limitations are the sound quality and the fact that it is not possible to interact with them on a human level.

In order to ensure that the delegates heard the viewpoint of young deaf people themselves there then followed the first of two presentations from deaf young adults. In the first one a third-year audiology student explained about her background and what access arrangements are provided. She highlighted the difference between hearing and understanding and underlined how much effort listening takes – she spoke of the importance of room acoustics, the speaking style of the teachers, note-taking support and the support for examinations. She gave the audience tips about how best to communicate with deaf people including getting their attention first, letting them see your face, not turning away and giving handouts in advance.

As the conference drew to a close there was a wide-ranging discussion about the virtues and challenges of elearning. Delegates shared their experiences which highlighted such benefits as cost, speed, motivation, lower environmental impact, flexibility, and allowing the



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Sam the robot supports auditory rehabilitation

participant to revisit material for further study or revision. The disadvantages include the lack of face to face contact, the fact that any assignments submitted might not be the work of the student and the limited nature of computer based assessment depending mainly on checking facts.

The penultimate session was a very interesting presentation from Professor Bart Rienties from the Open University who had been studying the results of repeated surveys from the project's participants into their networking and in particular 'whom they had learnt from' within the project. This study of leaning analytics can provide useful data for course creators and although this project is now over it showed some very interesting patterns of contact and some significant cross-disciplinary interaction.

The conference ended with a short presentation from a young deaf nurse talking about the issues she faces in the work place and she again provided useful information to the delegates about how best to speak to and interact with deaf adults to aid their 'inclusion in a noisy society'.



Paul Simpson is the National Executive Officer of BATOD. He attended this conference in his capacity as Vice-President of FEAPDA.

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