

Technology update

Jeanette Hender addresses some real problems regarding auxiliary input which were raised by a parent and a school, examines some questions posed by newly-Qualified Teachers of the Deaf (QToDs), and gives some brief comments and suggestions regarding the delivery of online training

A parental enquiry

A family of three children (age range 1–6 years) all have tamper-proof, integrated Roger 18 receivers and a Roger Touchscreen Mic transmitter for use in both their school/preschool setting and at home. When taking a flight last summer, their mum was saddened that they had to watch the inflight film entertainment in silence for four hours (subtitles are not yet an option due to their level of reading development). On reflection, she wanted to know if it was permitted to use their transmitters on a flight, with auxiliary input, to access film audio.

The Touchscreen User Guide specifies the transmitter can only be used during a flight with express permission. I asked Tony Murphy, Wireless Communication Specialist for Phonak UK, whether such permission generally tends to be granted or denied. He acknowledged that airlines can be very wary as they probably don't know what they are. He suggested refraining from using a radio aid transmitter during take-off and landing but was not aware of any technical reason precluding its use during the flight. Tony advised those wishing to use a radio aid in flight to contact the airline in advance and send them the relevant data sheet so their tech team can make an informed decision.

The datasheet for a Roger Touchscreen may be accessed at: https://www.phonaknhs.co.uk/wp-content/uploads/2018/10/datasheet_phonak_roger_touchscreen_mic.pdf

and the Declaration of Conformity can be obtained from: https://www.phonak-communications.com/fileadmin/user_upload/pdf/zertifikate/RED_DoC_Roger_Touchscreen_Mic_SF.pdf

A problem raised by a school

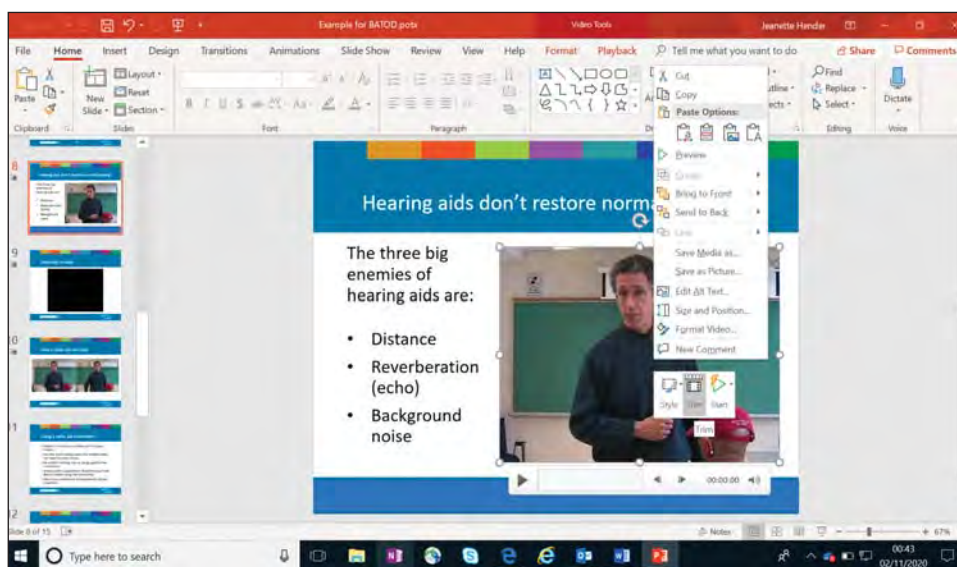
A key stage 1 cochlear implant user became distressed in his new class last September when a splitter and 3mm jack lead were used to connect his transmitter to the audio signal being broadcast from the class smartboard. This method had worked very well the previous year when the class was watching film and TV clips; however, he was now adamant that the signal was uncomfortably loud.

It transpired that this year's classroom had a new

smartboard with its own volume control. Whilst the volume was appropriate for those listening through ambient sound in the classroom, this had been achieved through raising the computer volume and lowering the smartboard speaker volume. Since the transmitter was receiving the sound directly out of the computer, only the pupil concerned was receiving an uncomfortably loud signal. Once the computer volume was reduced to a comfortable level for him, the smartboard speaker volume could be adjusted to an appropriate level of audibility for the rest of the class.

Newly-qualified ToDs asked about data logging: What is it? How is it accessed? Are there any issues about consent?

Information collected by hearing aid data logging varies between manufacturers. It is accessed by connecting the hearing aid to the programming software via a Hi-Pro box, and therefore would normally be done by the clinical audiologist rather than a QToD. It can provide the audiologist with information about how the hearing instrument is being used, such as hours of use or time spent in each programme. The more features or programmes that are enabled on a hearing aid, the more data that is likely to be available. In the case of adults or older young people, data logging is likely to assist the audiologist in their discussions with the user and may help inform any necessary tweaks to the programming. For younger children using only one programme, such as custom calm, available data may be limited to average daily use. Data logging may be best thought of as a tool at the audiologist's disposal. Whilst the data can be informative, it is difficult to be certain of its accuracy. For



Including a video clip with a PowerPoint presentation

example, a hearing aid could be left on in a drawer but appear to be used consistently. Audiologists may find it helpful to share significant data logging findings with the child's QToD, as they are perhaps more likely to have a rapport with the child/young person and family and may be better placed to follow up any issues.

There appear to be differences of opinion regarding consent. Since the data doesn't include details, such as GPS tracking or voice recording, the audiology departments consulted do not obtain formal consent but simply mention to the child's family that the hearing aid stores information about how it is being used. This approach is very similar to the information provided regarding radio aids. For example, the Roger Touchscreen User Guide (in section 24.3) informs the user that the "Device collects and stores internal technical data. This data may be read by a hearing care professional in order to check the device, as well as to help you use your device correctly". QToDs and Educational Audiologists should point this out to families and those who will be using the radio aid at the time of fitting, in a similar way to highlighting the other point in the same section regarding caution about pacemakers/medical devices and transmitter use.

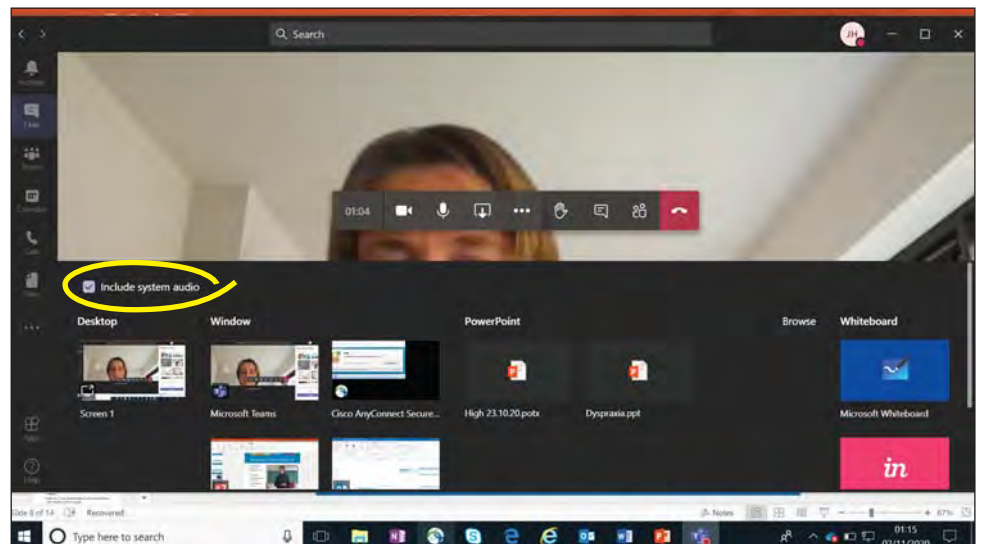
Although the clinical software has potential to recognise the use of a radio aid, eg in the section Roger DAI and mic, QToDs may obtain information about usage and link quality by using the check feature on the transmitter, if available, to read the information stored on the receiver.

The newly-QToDs also wanted information about tone hooks

Tone hooks, also known as elbows, enable the hearing aid to sit comfortably on the ear and to be connected to the flexible tubing of the ear mould. They are available in different sizes, such as those to fit a baby's ear, and in a range of colours. They need to be changed periodically, so QToDs should alert the family/audiology if they become loose, discoloured, cracked or split. Tone hooks can have a small impact on the frequency response of the hearing aid, and therefore need to be fitted when programming/testing the hearing aid. Tone hooks with filters used to be used more frequently in the days of analogue hearing aids, when every little change was sometimes needed in trying to achieve a match to target. However, when programming digital hearing aids, there is much greater potential to adjust specific frequency bands so the need for a filtered tone hook is largely obsolete.

Further to the list of potentially useful video clips that appeared on this page in the last magazine ...

During these times when QToDs are unable to



Tick the box to include system audio

demonstrate the limitations of hearing aids and the benefit of radio aids to staff through hands-on training activities, the following clip Hearing Aid – FM Simulation can prove a powerful illustration:

<https://www.youtube.com/watch?v=1I37IzLlqQU>

One secondary school that had requested whole-staff training had refused to use the radio aid for the first half term of this academic year due to fears of cross contamination from passing the transmitter between staff. They believed the student was coping fine, but he was telling his family to the contrary. After watching excerpts of this clip as part of remote training during an inset day, they were immediately keen to discuss how the radio aid could be safely incorporated in future.

Including video clips as part of remote training

The Insert tab within PowerPoint contains an option to add video or audio direct from the web; however, if local authority protocols block external content being included or cause PowerPoint to crash, freely-available software, such as ClipGrab, can be used to save the aforementioned video or any other clip from video-sharing websites in an appropriate file format such as MP4. It can then be inserted into a PowerPoint presentation and trimmed so only the most pertinent section is broadcast.

To trim, click on the inserted sound or video file and then right click to access the trim feature from the menu that has appeared:

If delivering training via a video conference platform, such as Microsoft Teams, remember to tick the box to include system audio when sharing screen so the audience will be able to both hear and see the presentation. ■



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