Background

Ursula Walker works for the Walsall Support Service for Hearing Impaired Children, a teaching and advisory service working with children of all ages, from pre-school to school leavers who have a wide range of hearing loss.

Service teachers work with children to enable them to access a broad based and balanced education in line with National Curriculum requirements. They adapt and supplement schools teaching materials to help meet the needs of hearing-impaired children including very specific individual needs.

This particular activity has been used with severely and profoundly deaf Key Stage 1 pupils. It was originally made for a specific pupil with a severe hearing impairment and a speech and language difficulty who was learning to read the key vocabulary used in the game. It has subsequently been used with other pupils to help reinforce vocabulary.

Using PowerPoint to Support Hearing Impaired Children

Most of the Service teachers now work on a laptop. This allows them to create customised teaching materials appropriate to specific pupils or groups of pupils. It also allows for easy modification and differentiation. Access by teachers to a laptop eases the problems of transporting the materials around and accessing computers.

The teacher used PowerPoint to create interactive games to meet specific learning objectives. These games were used with individual pupils using a laptop within both a quiet, distraction-free room and within the mainstream classroom.

The NOF training identified imaginative uses of PowerPoint that could enhance teaching and learning. Some of the Service teachers had come across the use of PowerPoint as a presentation tool but were not aware of its potential use with and by children. The first project required trainees to demonstrate how they would use PowerPoint effectively with specific deaf and hearing-impaired pupils.

Game 1. Sh-ch phonics game

This demonstrates how the use of hyperlinks within the PowerPoint program has been usefully employed to create interactive games for younger children. It was created to support the teaching and learning of initial “ch” and “sh” sounds of familiar words. The teacher, Ursula, created something specific for her pupils by selecting her own vocabulary and appropriate clip art.
This game was used with individual pupils using a laptop in a quiet, distraction-free room. It has now been used with several children with a range of hearing impairments: severe, profound and high frequency. It has also been used with a pupil who uses a cochlear implant and is learning to recognise speech sounds that were previously inaccessible to her.

Pupils had to use the mouse to click the picture that matched the word on the screen. If they clicked the correct picture, the picture then disappeared to reveal the next word. If the pupil clicked an incorrect picture nothing happened. The pupil continued to click the picture that matched each word until the end of the game when a star reward appeared. Whilst playing the game, the pupil was encouraged to notice the initial sounds/phonemes, pronounce each word, anticipate the initial sound/phoneme and remember the initial sound/phoneme. All the pupils were able to use the game easily.

This game was a simple way to provide practice for several pupils being supported by the Service in different schools. The game was ‘fail-safe’ as the next word was only revealed when the child had clicked the correct picture. Pupils are motivated and enjoy the control they have over the technology. They are able to work at their own pace and repeat the process as often as they wished within the time allowed. The teacher had complete control over what words went into the game and now has the skills to develop other, similar materials.

**Game 2 Sound Lotto**

As part of their work the Service teachers teach and actively encourage children to develop their listening skills and to use hearing aids effectively.

![Game 2 Sound Lotto](image)

This activity has been used with moderately and severely deaf Key Stage 1 and 2 pupils. It has also been used with a profoundly deaf pupil who has a cochlear implant and is learning to recognise a range of environmental sounds that were previously outside her range of hearing.

Ursula again demonstrates how PowerPoint can be used imaginatively and interactively. This game incorporates sound and images and the use of hyperlinks allows the child to select a picture to match the sound. Again, the use of a laptop allowed for ease of transportation and use of the prepared materials.

The pupil had to use the mouse to click the arrow on the first page to activate the game. The initial sound automatically played and the pupil had to click the object associated with that sound. If they were unsure they could click the sound button to repeat the sound. If the child clicked the correct picture the word ‘Yes’ flew onto the screen. The child then had to click the mouse button again and the next sound would be presented. If the child clicked an incorrect picture nothing happened.

Several children made use of the sound button to repeat sounds and some also made use of the volume control to enable them to increase the sound. The commercial sound lotto games used by the Service are aimed at young children. By producing a sound lotto game on the laptop it was easier to develop its use for and with key Stage 2 pupils. It was also possible to limit the number of sounds being used and focus on particular listening skills e.g. distinguishing between similar sounds (the clock ticking and horse’s hooves).

**Game 3 Words, words, words**

This activity has been used with severely and profoundly deaf Key Stage 1 pupils. It was originally made for a specific pupil with a severe hearing impairment and a speech and language difficulty
who was learning to read the key vocabulary used in the game. It has subsequently been used with other pupils to help reinforce vocabulary.

This game was used with individual pupils using a laptop in both a quiet, distraction-free room and within the mainstream classroom. The pupil had to use the mouse to click the arrow on the first page to activate the game. They then had to click the sound button to hear a word. They then had to click the matching picture. If they clicked the correct picture a happy person appeared and they then clicked the next page button to turn to the next page. If they clicked the incorrect picture a sad person appeared and they had to click the button to try again.

Initially the children were shown how to use the activity; this is essential because they have to click the sound button first. Once the process was understood they quickly managed without adult help. It was easy to observe from a distance to gauge how well the pupil was succeeding. This activity fits into the Reading component of the Literacy Curriculum.

ICT enable us to use the familiar voice of the Teacher of the Deaf to record the words. This gave the child a familiar accent to listen to. ICT also enabled us to focus on key vocabulary relevant to the particular pupil. The self-correcting aspect of this game meant that pupils could practice their vocabulary independently without reinforcing errors.

The children we have used this activity with have been happier to practice activities and skills on the laptop for longer that they have previously been with home-made flash cards. We have now started to use digital cameras to make the illustrations personal to our pupils. This is proving particularly successful with our younger pupils.

Game 4: Parts of a hearing aid

As part of their work the Service teachers actively encourage children to develop a positive self-image of themselves as deaf and hearing-impaired children, and also teach them to use their hearing aids effectively.

This activity has been used with several Key Stage 1, 2 and 3 pupils who are hearing aid users. The game was created using PowerPoint, images taken with a digital camera and hyperlinks and was used with individual pupils using a laptop in a quiet, distraction-free room. A related worksheet was also created using PowerPoint.

The pupil had to use the mouse to click the word that corresponded to the part of the hearing aid indicated by the turquoise arrow. If they clicked the correct word, a smiley face appeared but if they clicked the incorrect word a sad face appeared. They then had another chance to click the correct word.

This programme was easy for all the pupils to use (they ranged from Y1 to Y6). The diagram of the post aural hearing aid was clear so they could easily compare it to their own hearing aids. The pupils also had a worksheet to complete, using the vocabulary from the PowerPoint presentation. This was used slightly differently depending on the age and ability of the child. Some completed the worksheet whilst working through the presentation so that they could copy the correct word, others completed it from memory after they had completed the presentation.

This activity fits into PSHE for deaf and hearing-impaired pupils. It could also be used as part of a
deaf awareness topic in mainstream or linked to a science topic on sound in either KS 1 or 2.

This game was a simple way to provide vocabulary practice for several pupils being supported by our Service in different schools. It’s ease of use made it appropriate for the younger children but the presentation meant that it was also well received by older pupils. For some pupils it provided a useful way into discussions about the implications of hearing impairment. The activity was ‘fail-safe’ as each response elicited either a happy or sad face. This meant that it could be used independently by pupils.

This particular activity is suitable for a wide range of pupils (both in terms of their age and degree of hearing impairment) and helps make vocabulary practice quick and easy. Ursula feels that it has been useful to have this activity on the laptop, as she has been able to refer to it with pupils even when she had not planned to do so on a particular visit.

Reflections and Future Developments

An increasing number of Service resources are now either on disc or made using ICT. Games such as these are self-correcting which means that the children can practice skills independent of the teacher without the worry that they may be making mistakes and reinforcing incorrect rules/strategies. Teachers have now also started to use digital cameras to make the illustrations particularly meaningful to their pupils.

“As visiting teachers we can only carry a limited number of resources on each visit. Potentially we can build up a far greater bank of resources on our laptops than we would ever be able to carry otherwise.”

The NOF training has increased general awareness of how ICT can benefit teachers within the Service and their pupils; it has also encouraged the accumulation of more and better hardware.