



ICT HUB CASE STUDY – ACCESSIBLE ICT

Organisation name:

The Second Chance Centre, Pinderfields Hospital, West Yorkshire

Summary:

The Second Chance Centre provides rehabilitation and support through activities such as woodcraft, sewing and ICT for people who have suffered severe head trauma and/or brain injury.

The Yorkshire and Humber regional ICT champion visited the centre as their ICT equipment was ancient, ICT tuition had stopped and there was no evidence of adaptive technology for service users to use. Electroville helped to upgrade the equipment within the ICT suite and also provided a tutor to deliver certified ICT training to the service users attending. This training was well received and more clients are attending the courses.

In order to support the clients better, it was agreed to train the tutor and volunteers of the organisation further in adaptive technology and software so they could support their clients.

What happened?

Through observation of the learners in their ICT classes, the regional ICT champion noticed that some were using the zoom option on their computers to enlarge the text in order to make it easier to see the characters on the monitor. This was causing them to strain their eyes due to the glare of the screen and the poor lighting in the ICT suite. To rectify this, the **desktops were customised** to the individuals' preferred settings which included high contrast, large fonts, menus and icons. Screen resolutions were set to lower the glare. Some of the service users were struggling to control the mouse, so changes were made to the mouse pointers to enlarge it for better visibility and slow the motion rate down to a more controlled pace which would allow for better control.

Changes were also made to the cursor to stop confusion between the mouse pointer and cursor. The cursor was widened to 0.5cm and the blink rate reduced or increased dependent on the individual's preference.

To eliminate the frustration of repetitive key strokes due to tremors or limited control in hand / arm movements, **Filter Keys** was applied on the computer so that when a learner pressed a key continuously, only one character would appear on screen, rather than a long line of the same letter.



Sticky Keys was applied for those who found it difficult to operate 2 or 3 keys all at once, i.e. SHIFT and 'a letter' to gain a capital letter, or CTRL, ALT & DELETE to open up the Task Manager. By activating Sticky Keys, the learner was able to carry out this operation with just one finger in sequence.

As the learners will use a different computer each time they use the ICT suite, the tutor and volunteers were shown how to save each personally customised desktop changes to removable media, e.g. CD or USB memory stick. This way, a learner can install their desktop changes to any computer without having spend a lot of time initiating all their user preferences each time.

Some were also using high visibility keyboards, **Big Keys** and/or a **trackball**. These were on loan and would soon be withdrawn from the centre. This is not conducive to flexible learning as the learners would have to revert back to standard pieces of computer hardware once the class had ended. It was also pointed out that the high visibility keyboards currently on loan had a lower life expectancy as the lettering on the keys would eventually disappear due to everyday wear and tear and that these keyboards are actually more expensive than other high visibility keyboards that are readily available.

It was recommended to purchase KidGlove keyboards (www.kidglove.co.uk) that were of a soft-touch nature, extremely durable and hard-wearing, as well as having a waterproof plastic removable cover that protected the keyboard. Letters were large and highly visible against a coloured background with various contrasting colours available e.g. black letters on yellow background, white letters on black background, or colour co-ordinated keys.

Some service users with more severe disabilities that limited mobility in their arms and hands found themselves excluded from using the computers due to tiring easily from using the standard input devices (i.e. keyboard and mouse) or being unable to operate the equipment easily. PenFriend (www.penfriend.biz) which is **predictive word software** enabled service users to type the first couple of letters of any word and the software would try and predict what word the service user wanted next. A list of 12 words would appear alongside a computer function key, which the service user could then press the appropriate function key for. This cut down the need to type out the entire word.

If their speech was unaffected and quite clear, **speech recognition software** (Dragon Naturally Speaking www.nuance.com/dragon) was trialled. This enabled service users to talk to the computer and have their instructions followed and words appear on the screen. This limited the need to input physically.

It was also noted that the volunteers themselves had limited knowledge which could sometimes hinder the learner. It was important to work with the organisation to ensure the volunteers were able to support the learners by being



able to operate the adaptive equipment and to make reasonable adjustments to the computer's operating system themselves to inspire confidence in the learners. Volunteers were encouraged to try the equipment out themselves and also to learn basic ICT.

The organisation needed to purchase its own stock of adaptive technology to better support the learners. The tutor would bring the adaptive equipment on-site each time. Being on a limited financial budget, recommendations were made for certain pieces of adaptive equipment that would benefit a majority of individuals rather than one person only.

What difference has ICT made?

Volunteers are more skilled in their knowledge of adaptive technology and are now able to support the learners better with confidence.

The tutor is more aware of technology available that makes for a more beneficial impact on the learners, increasing the pace of the class and more learners completing the course. Less time is spent initiating adjustments to the desktop for each individual learner.

The organisation is currently in the process of raising funds in order to purchase adaptive equipment of their own which includes Dragon Naturally Speaking, TextHelp Read & Write (www.texthelp.com), KidGlove keyboards and Roller II Trackballs (<http://assistive.traxsys.com>).

What was learnt?

- ICT accessibility need not be expensive or difficult to implement;
- Learners are learning at a greater pace and retaining the knowledge and this is improving their rehabilitation;
- More service users became interested in ICT and utilising the computers as well as signing up for classes.



FIND OUT MORE:

Regional Champion

Colin Harrison – Yorkshire & Humberside Regional Champion (Electroville)

Email: colinharrison@electroville.org.uk

Web: <http://yhictchampion.wordpress.com/>

Knowledgebase

Using zoom layouts - alternative style sheets for improving your site's accessibility

<http://www.ictHubknowledgebase.org.uk/zoomlayouts>

Accessibility and Inclusion

<http://www.ictHubknowledgebase.org.uk/accessibilityinclusionbasics>

Making Computers Accessible for Disabled People

<http://www.ictHubknowledgebase.org.uk/computeraccessibilitytips>

Voice Recognition Software

<http://www.ictHubknowledgebase.org.uk/voicerecognition>

AbilityNet

www.abilitynet.org.uk