



ity; for example access to a building being made impossible for a wheelchair user because no ramp is provided.

When a risk assessment is undertaken for a disabled worker – by a competent assessor – a solution or reasonable adjustment will be put forward which often exceeds that required under health and safety legislation. In many cases, an office worker with a disability will require a more supportive chair, alterations to the workstation layout, which is dependent on task, stature and nature of the disability, and possibly other assistance depending on the disability. If the worker's current chair fails to meet his or her disability needs, but meets the requirements of the Health and Safety (Display Screen Equipment) Regulations, then a special chair will be needed, which can be regarded as a disability need.

Another example is the footrest; if a worker suffers from poor circulation then a standard footrest is not effective and a special rocking footrest is needed, again this can be viewed as a disability need not a health and safety need. This process can be carried on until a list of disability issues and needs have been generated which are separate from health and safety needs.

With over 26 000 items designed to assist disabled workers, there is likely to be some overlap with items that are prescribed for health and safety reasons. Many are very clearly designed for specific disabilities. There are everyday items, however, that can be used to assist people with a disabling condition. For example, a lever arch folder, which is freely available in most offices, can be used as a writing slope and is easily carried to meetings or from desk to desk. Paper copy can be enlarged for people with a visual impairment simply by using the "enlarge" facility of a photocopier, making invoices, letters etc easier to read.

Distinguishing between health and safety and disability needs can be made easier if disability is considered by the way in which it impairs the worker. Impairment can be classed in the following categories:

- sensory (hearing & visual impairment)
- physical impairment (muscular dystrophy, limb disorders, paraplegia)
- cognitive impairment (dyslexia, brain injury).

AS A HUMAN FACTORS SPECIALIST practising in the area of workplace accommodation and adjustment, I am often asked when making recommendations to differentiate between health and safety and disability requirements. There are 2 important reasons why managers should differentiate between health and safety and disability.

First, reasonable adjustments made for a disabled worker need to be accurately documented. Second, many companies will pay for equipment for disabled workers out of a different budget to avoid depleting the health and safety budget or they wish to claim government funding for adaptations and new equipment required for a disabled worker.

In some cases differentiating between the 2 requirements is an easy task while in others it becomes a moot point. For example a hard of hearing or deaf worker who must be alerted to the fact that an alarm has gone off may benefit from using a vibrating pager. But who is to pay for it? To avoid trapping the deaf workers in a dangerous building, it is a health and safety need but,

as they cannot hear the alarm, it is a disability need too.

Usability and accessibility are 2 terms that are often confused when talking about health and safety and disability. Considering usability, this will not disadvantage a disabled user more unfairly than a person without a disability; for example computer software with no user instructions would make its use difficult for all. An accessibility issue will put a person with a disability at a disadvantage to a person without a disability.

Craig's story

Craig is a caretaker in an infants school and is responsible for cleaning the school site. Craig suffered 2 strokes and is unable to use his left hand. He was having problems in keeping the wooden floors clean. The initial part of the process was to sweep the floor and wash it using a mop and bucket. The task of wringing the mop in the bucket was found to be very difficult when using only one hand. Craig then had to polish the floor.

A simple analysis of the task was undertaken and it was decided that a multi-functioning cleaning machine should be purchased. The school was unable to pay for this equipment however, so Craig sought funding from Access to Work to cover the costs. Since using the new machine he has been able to carry out the tasks effectively. His employer is very happy with Craig's job accommodation and the greatly reduced health and safety concerns. In this instance, it can be seen clearly that the item purchased was necessary for Craig to keep his job. (For further information about the Access to Work scheme visit www.jobcentreplus.gov.uk.)

Visual impairment is considered by many experts as the toughest workplace challenge, however for people who are either blind or visually impaired there are several options open to them. Many utilise Assistive technology (AT) which relates to devices that assist people to overcome the limitations of their disabilities.

AT can assist workers with vision or hearing loss and include tactile and auditory mobility aids, auditory signalling devices, print and computer screen magnification devices. There are AT products that can convert what is being spoken to sign language, text or an image for an individual who is deaf or hard of hearing. Some designed for communication centre on the ability to send or receive messages in a spoken or written form and include adapted telephones, captioned TV, voice controlled computer input, writing aids and speech output devices. Although deaf people do not consider themselves disabled they are discriminated against when no captions or visual information is provided.

There are many forms of physical impairment and just as many workplace solutions. Some examples are set out in the **Doris, Craig and Kim** case study panels.

Cognitive impairments include problems with reading, writing, thinking, memory and decision making. Since employers are generally not very aware of potential learning difficulty issues, functional deficits can create job performance problems after individuals are hired.

Health and safety issues faced by cognitive impaired workers include problems with reading instructions and warnings, remembering the correct procedures in the operation of equipment, processing complicated information in whole chunks and becoming stressed due to the impairment that causes problems in the first place. To avoid discriminating against workers, their needs must be addressed. For example, instruc-

Kim's story

Kim is a teacher in an infants school who injured her back in a sporting accident. Her back pain increased when having to sit on the small plastic bucket chair of the type used by children, which was intensified when she had to lean over the tables to assist children reading. The work proved difficult and Kim and her headmaster had agreed that if the assessment failed to find a solution then she would have to be redeployed.

The situation was simply resolved; Kim did not have to lean over the desk as she could use a laser pointer to highlight words, pictures etc and the children thought this was great fun! A solution to the seating was found by using a Pallone Ball, a large sit on ball, which allowed Kim to move about to avoid static loading. At the same time, Kim could sit closer to the ground and be nearer the children when reading stories to them during the quiet time.

tions and warnings can be pictorial or the use of words that do not appear to be the same as other words.

Some workers who are stressed or making mistakes, such as typos or using the wrong words, have a cognitive impairment, eg dyslexia. Many have overcome their problems by using software designed to assist them with learning disabilities. There are word prediction programs which predict words based on frequency of use. Others offer phonetic prediction, grammatical prediction, alphabetical order, and some provide auditory feedback.

Workplace intervention

To avoid failure and abandonment of a workplace intervention, it is essential that a consideration of all factors is made and adequate internal resources are sought:

- union reps and HR staff can help resolve issues of job task restructuring
- facility managers can suggest and implement environmental modifications
- co-workers can suggest ways of completing tasks that can work for everyone
- technical staff can help create tools to make workers safer as well as more productive.

Each potential resource should be fully explored to help identify what needs to be done before any external technical assistance is sought or the wrong type of help or

equipment is sourced. Successful adaptation is the result of teamwork but must be coordinated by an individual involved who clearly understands what needs to be done, when it will be done, and what are each individual team member's responsibilities. It must include the active involvement of the individual with the disability, as well as the commitment of the supervisor and co-workers. (The co-ordinator should carry out the follow up assessment and monitor the situation regularly.)

The health and safety manager or safety representative can assist the worker with a disabling condition by understanding the problems that the worker faces. A simple task analysis should be undertaken or the worker can be observed to determine the health and safety and disability factors. Then a list can be drawn up describing the parts of the task where the problem is occurring or likely to occur and what can be done to assist the worker. The list should be discussed with the worker to validate and fine tune it. After this process, it would be prudent to have a meeting with the supervisor and safety rep to go over the findings. This process should present a solution. If it does not then it may be necessary to discuss the matter with a dedicated expert who has an extensive knowledge of accommodation and disability in the workplace.

It is essential that the health and safety managers ensure that a safety rep or a trained risk assessor or indeed they, themselves, carry out a follow up risk assessment after the equipment has been installed and the job accommodation for a disabled worker undertaken. The risk assessment, if carried out correctly, should have identified any problems so that the correct equipment is provided or alternative action is taken.

Access to work scheme

Access to Work is a JobCentre Plus initiative that assists people in overcoming the practical problems caused by disability. It offers advice and help in a flexible way that can be tailored to meet the additional needs of an individual in a particular job. The programme can include the provision of special aids to employment, adaptation to premises, equipment and vehicles, a support worker and assistance to and from work. Full details can be found at www.jobcentreplus.gov.uk.

Doris's story

Doris started work recently in a busy office and has a visual, hearing and physical impairment. She was unable to hear the telephone ring or read paperwork. She found that the office and daylight aggravated her condition. She also found filing a difficult task because the details were handwritten on to the files. The challenges Doris faced had an impact on other workers so that a solution was urgently required.

Lists and other documents that she had to read were enlarged on the photocopier or a larger font size was used, and printed out, when the documents were computer-generated. To make file searching easier, all labels on files were typed in large, black lettering on a white background. Doris's visual impairment also made differentiating objects along corridors difficult, such as boxes placed on the floor. A memo issued by management to avoid this practice ensured that all access areas were kept clear, which benefited all.

To resolve her sensitivity to light, Doris was advised to wear eye-shields which minimised the light, and when seated a wrap-around curtain was put up that shielded her from both the day and artificial light. In addition, the walls were painted to improve contrast.

A solution to Doris's hearing impairment was found — a vibrating pager was supplied to indicate that somebody was trying to contact her and a message could be retrieved. This device also ensured Doris's health and safety at work by alerting her to emergencies. An amplified telephone was supplied for Doris so that she could hear callers clearly. And a flashing light on the telephone alerted her to incoming calls so that there was no need for a loud ring.

Doris suffered from a fractured coccyx and found that being seated on a standard chair caused a problem. A chair with a lumbar support and a coccyx cut out was supplied that gave Doris immediate relief. The costs were minimal as Doris had just started work she was able to claim for funding under the Access To Work scheme. By providing this equipment and increasing the awareness of Doris's disability her productivity increased and there was no conflict with health and safety issues or with other staff. (For further information about Access To Work visit www.jobcentreplus.gov.uk.)