

Strategies to improve accessibility for disabled children and young people: planning duties and ICT

The Education (Disability Strategies and Pupils' Educational Records) (Scotland) Act 2002 describes what planning duties, introduced by the Special Educational Needs and Disability Act 2001 (SENDA), need to be carried out by local authorities, independent and grant-aided schools in Scotland. Known as its 'Accessibility Strategy' each local authority and other education provider – the so-called responsible body – has to set out how it plans to improve accessibility. Prepared on a 3-yearly cycle, local authorities in Scotland had to submit their first 3-yearly plan in 1 April 2003.

The Scottish Executive Education Department has produced valuable guidance for local authorities to help them prepare their accessibility strategies, which includes suggestions in each of three areas in which to plan for improved accessibility. In 2003 SEED published a HMIE / DRC joint report on the first round of accessibility strategies. This document aims to share good practice points rather than to point to areas of weakness. We anticipate that the next report will be more likely to draw attention to some of the difficulties disabled pupils experience and how local authorities might address these difficulties in their next accessibility strategies – due on 1 April 2006. Both of these documents are listed in the 'Where can I find out more' section and can be downloaded by clicking on the relevant website reference.

The duty to plan to improve accessibility includes planning for improving the physical environment of the school as well as access to the curriculum. Areas that could be covered may include, for example, installing lifts or ramps; fitting induction loops; providing materials on tape or facilities for converting materials into Braille; and the provision of specialist furniture or ICT equipment, etc.

In this ICT Advice sheet we focus mainly on arrangements to improve accessibility in relation to the use of ICT. Bear in mind that accessibility strategy planning goes beyond the use of ICT. Although ICT offers important opportunities to improve access for disabled pupils, at the same time ICT is presenting its own challenges to accessibility. The impact of Accessibility Strategy planning in the area of ICT is already beginning to be seen and the effects will continue to be felt for many years to come. Two examples of the need to consider carefully the opportunities and challenges of ICT to disabled pupils follow:

Example 1

The introduction of managed networks across UK schools presents both opportunities and additional barriers that need to be overcome if the support needs of disabled pupils are to be addressed. For example, 'locking down' the network to prevent pupils and staff accidentally (or intentionally) transmitting viruses and worms, changing display settings and such like can mean that disabled pupils cannot access the computer at all.

Example 2

The recent announcement of national distribution via the Scottish Schools Digital Network, of Clicker 4, Kidspiration and Inspiration <http://www.ltscotland.org.uk/edresources/online/digitalprocurement.asp> makes it essential to investigate and confirm that software can be successfully installed on school networks. Unless this is carefully thought through pupils will not be able to access the very software that is designed to improve their curricular access.

Areas of improvement: the planning duties

There are three areas of improvement needed in relation to disabled pupils:

- Improving access to the physical environment
- Improving access to the curriculum
- Improving access to communication and delivery of school information

Improving access to the physical environment

Focus on ICT (extracted from SEED Guidance on Accessibility Strategies, see “Where can I find out more?” at end of this ICT Advice sheet)

54. 'Improvements will include:

- physical access (such as architectural planning for accessibility: the installation of ramps, handrails, widened doorways, lifts, automatic doors, accessible toilets, showers and changing areas, adapted/ adjustable furniture and equipment, sufficient space for manoeuvring and storing equipment, floor coverings and evacuation procedures)
- access for pupils with visual impairments (such as: improvements to signage, route finding systems to enable pupils to find their way round a school easily, colour contrasting for e.g. door handles and steps to enable pupils to make best use of residual vision, adjustable lighting, blinds, tactile paving outside the school, evacuation procedures)
- access for pupils with hearing impairments (such as: induction loops/ radio systems/infrared systems, adjustable lighting, sound insulation for walls, floors and ceilings, evacuation procedures, floor coverings)
- access for pupils with other disabilities (such as requirements for space: the provision of pupil support bases, quiet rooms, sensory rooms/play areas, therapy rooms, etc. and way finding systems).

Improving access to the curriculum

Focus on ICT (extracted from SEED Guidance on Accessibility Strategies, see “Where can I find out more?” at end of this ICT Advice sheet)

48. “In reviewing existing contracts and, if necessary, negotiating new ones, a commissioning body should ensure that:

- specialised items of hardware and software, such as an alternative keyboard, mouse or switches can be added easily;
- software needed by pupils with disabilities, such as speech output or screen magnification, can be installed;
- the full range of accessibility options within the operating system can be utilised, for example, to slow down mouse speed or keyboard repeat rate, or to enlarge screen fonts or reduce screen clutter;
- equipment can be placed in accessible locations, for example, so that wheelchair users can reach the keyboard and see the screen;

- access privileges are flexible enough to enable staff to make necessary changes to afford access (for example, to adjust control panels or save individual settings for specific programs).”

Improving access to communication and delivery of school information

Focus on ICT (extracted from SEED Guidance on Accessibility Strategies, see “Where can I find out more?” at end of this ICT Advice sheet)

68. “The third duty requires responsible bodies to improve communication with pupils with disabilities. Responsible bodies should take steps to improve how these pupils can give their views on any issue about which they have an interest, gather in those views and consider them. Consideration should be given to whether class work or homework could be given in alternative forms and, also, consider how any homework, or other work pupils do in alternative forms, can best be marked/commented on by school staff. Pupils’ communication with teaching and auxiliary staff as part of their learning should also be considered under the access to the curriculum’ duty.

64. “In particular, this communication duty covers the delivery of information normally provided to pupils in writing. This ‘school information’ includes any information given to pupils by the school, such as: handouts and worksheets, textbooks, timetables, handbooks, test and examination papers, posters around the school, information about school events. Responsible bodies should ensure that any information that is important to enable pupils to learn or to be able to participate in school activities can be provided in an alternative form if the pupil may have difficulty reading information provided in standard written form.”

65. “Information may need to be provided in alternative forms, such as: providing information orally (for example, to ensure that a pupil has understood information provided on posters or in their timetable), in Braille, in large print, in audio formats, through ICT, through sign language (either on video or by using appropriately qualified teachers or auxiliary staff) or through a recognised symbol system (such as Makaton). The responsible body should ensure that this information is provided within a reasonable time so that it does not place pupils with disabilities at a disadvantage in relation to other pupils. Therefore, demands would have to be anticipated in advance and school staff would need to make sure that any materials to be provided in alternative forms, such as Braille, large print, audio tape, video signing and electronic files were provided for translation well in advance of the time when they will be needed.”

Examples

In the following tables we include a few examples of the sorts of support needs that disabled pupils – and schools – have in using ICT. Plans to address these (and other) ICT areas should feature within local authority Accessibility Strategy planning. Each of the topic areas (in bold italics) represents a bullet point introduced under the heading ‘Improving access to the curriculum’. The second and third columns are adapted for each bullet point. Schools and local authorities might want to print out the sheets and use them as a quick audit of accessibility. For example, the response under *Col. 2 Can be added* might be “I don’t know but I know who to ask.” The third column can be used to identify what’s needed and to build up an action plan.

1. Specialised items of hardware and software, such as an alternative keyboard, mouse or switches can be added easily.

Scenario	Can be added	Comments / Actions
A student with handwriting difficulties needs to connect an AlphaSmart 3000 using a USB cable		
A student with physical difficulties who operates a specialised keyboard with a head pointer needs to connect it using a PS/2 cable		
A student who uses a trackball needs to connect it using a USB cable		
A student with severe physical difficulties, using head switches, requires a Crick USB Switchbox to operate Clicker 4 (note: the Crick SwitchBox requires software to be installed)		
Add your own		

2. Software needed by pupils with disabilities, such as speech output or screen magnification, can be installed.

Scenario	Can be installed	Comments / Actions
A student with visual impairment using the Jaws Screen Reader		
A dyslexic student using Kurzweil 3000 software to scan and read resources using text-to-speech software		
A dyslexic student using speech recognition software		
Clicker 4 grids can be downloaded from http://www.learninggrids.com/uk/ and installed in the correct location (note: on a Windows PC this requires running an 'exe' file)		
Add your own		

3. The full range of accessibility options within the operating system can be utilised, for example, to slow down mouse speed or keyboard repeat rate, or to enlarge screen fonts or reduce screen clutter.

Scenario	Can the option be utilised on network?	Comments / Actions
A student with visual impairment requires high contrast white-on-black settings		
A student with physical difficulties requires the keyboard repeat rate switched off		
A student with physical difficulties requires the mouse speed turned down		
Add your own		

4. Equipment can be placed in accessible locations, for example, so that wheelchair users can reach the keyboard and see the screen.

Scenario	Describe the procedure for accommodating this situation with respect to networks and networked computers in your local authority
A student at secondary school using an electric wheelchair which is too high to fit underneath standard computer furniture	
A student at secondary school who uses a personal laptop (Apple or PC) and requires access to the school networks	
Students with severe and complex disabilities, in specialised seating systems, who require accessible positioning of screen and access tools	
Add your own	

5. Access privileges are flexible enough to enable staff to make necessary changes to afford access (for example, to adjust control panels or save individual settings for specific programs).

Scenario	Can this be done on the network?	Comments / Actions
A student requires changes to Control Panel settings for his or her computer User Profile		
Staff are able to create 'Users' (e.g. for Clicker, Kurzweil, Co:Writer etc) with settings and files for individual or groups of students		
Add your own		

Where can I find out more?

- The **Education (Disability Strategies and Pupils' Educational Records) (Scotland) Act 2002** can be downloaded from: <http://www.hmso.gov.uk/legislation/scotland/acts2002/20020012.htm>
- The Scottish Executive: **Guidance on Planning to Improve Access to Education for Pupils with Disabilities: Guidance on Preparing Accessibility Strategies 2002** <http://www.scotland.gov.uk/library5/education/gpas-00.asp>
- The Scottish Executive: **Report on the First Round of Accessibility Strategies** Her Majesty's Inspectorate of Education and Disability Rights Commission (2003) ISBN: 0-7559-4018-0. <http://www.scotland.gov.uk/library5/education/gpasr-00.asp>
- **Disability Discrimination Act 1995:** The Disability Rights Commission has produced a range of publications about the provisions of the DDA, most of them posted on its website. Look in particular for the various codes of practice. It has also produced a useful guide for parents on the provisions of the SEN and Disability Act 2001 and the Education (Disability Strategies) (Scotland) Act 2002.
- The CALL Centre has extensive experience of the accessibility issues that need to be addressed in the use of ICT in schools. <http://www.callcentrescotland.org.uk> In particular CALL has produced a questionnaire / checklist to help inform accessibility planning around use of ICT.