'SPECIFIC' LEARNING DIFFICULTIES in PRISONS

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BOOKLET 5

SUPPORT FOR ICT and VIRTUAL CAMPUS

The full set of BOOKLETS comprises

1. **Introduction and Resources for Specific Learning Difficulties**
2. **Overview of Specific Learning Difficulties**
3. **Principles of Support for Specific Learning Difficulties**
4. **Support for English/Literacy and Maths/Numeracy**
5. **Support for ICT and Virtual Campus**
6. **Support for Foreign Nationals who may have Specific Learning Difficulties**
7. **Specific Learning Difficulties in the contexts of Disability / Equality / Diversity / Accessibility**
8. **Work Preparation and Resettlement**

The term 'Specific Learning Difficulties' refers to a family of conditions, namely Dyslexia, Dyspraxia, Attention Deficit Hyperactivity Disorder and Dyscalculia

ALL BOOKLETS are available on www.dyslexia-malvern.co.uk

SUPPORT FOR ICT and VIRTUAL CAMPUS

1. Developing Digital Learning & The Virtual Campus

2. Supporting Learning through Technology

3. SpLD Considerations when using Assistive Technology / ICT

4. Strategies / Technology Solutions in the context of SpLDs: EXERCISE

1. Developing Digital Learning & The Virtual Campus

Digital literacy is an essential skill for all prisoners, *paving the way to further learning, employment and access to services in the modern world* – according to *Unlocking Potential* (the Coates Review of education in prisons, 2016). Increasingly, form-filling is carried out on-line – to apply for Universal Credit, for instance, - leaving the 'digitally excluded' gravely disadvantaged.

Digital systems in prison must therefore be capable of supporting relevant high quality ICT training, in addition to a more flexible access to learning, possibly via the Virtual Campus, or via new innovative solutions being explored with current and new partner organisations. This approach enables learners to study for courses leading to qualifications at their own pace. If prisoners are transferred to other establishments or released, they can continue their learning programme.

The Coates Review envisages *education that is tailored to the needs of individual learners and enables participation in distance and other learning* (p44). Of particular relevance is the **employment-focused material on the Virtual Campus** which includes job searches, submitting job applications and CV building. It is to be hoped that the operational delivery of the Virtual Campus can rise to this challenge – during the period that the Coates team were visiting prisons, they found it to be *'under-utilised, poorly located, not working effectively'* with the result that may prisoners interviewed had discounted VC as a tool for learning or to support rehabilitation. However it is currently being re-designed with the aims of significantly improving the learner experience and rising to the challenges of implementing the Digital Learning Plan.

The former prisons minister, Rory Stewart, referred to '*a complex situation with on-going developments*' such as increased use of mobile technology. £600,000 was dedicated to improving Virtual Campus on 33 sites in time for the delivery of the Prison Education Framework, followed by hardware and software upgrades in 61 prisons. The Virtual Campus will also be available in workshops. In-cell learning is hailed as essential to promote learning in the modern age; this is currently being trialled.

An example of good practice is described on the Open University website:
The Virtual Campus (VC) managed at Thorn Cross by Novus, offers more than 130 online courses in many subjects including health and fitness, construction, horticulture, maths, English, higher learning, catering and employability. It encourages the development of learners' independent study skills, enabling them to work at their own pace.

Novus, working in partnership with Shelter and a volunteer HR manager, also delivers an employability and 'money matters' course. As part of the employability course, learners' skills are developed via the VC, including how to write a CV, a cover letter and an application form.

Two useful features of Virtual Campus are the secure message-relaying service between students and tutors and the opportunities for tutors to provide extra content to reinforce the learning in their sessions. There are a number of aspects that suit users with SpLDs:

- the interactive nature of much of the learning
- the possibility of bite-sized learning at one's own pace
- audio-visual content
- the chance to catch up on everyday skills, for example by learning how to send (simulated) emails.

The Personal Learning Plan will be embedded within the Virtual Campus, so it can be viewed by prisoners and incorporate courses undertaken, along with other activities and become a living, progressive record of learning and personal development. Information on any screening and assessments for Learning Disabilities and (Specific) Learning Difficulties will also be included in the Personal Learning Plan. The overall aim is that the Plan should be driven by the individualised outcomes identified by Information, Advice & Guidance (IAG) staff and by the learners themselves.

The advantages of using ICT for prisoners who may have failed to make progress in conventional settings, are summarised below.

ADVANTAGES OF USING ICT

ICT can be interactive
- this is good for those with a hands-on preference
- it helps to keep the learner actively engaged
- it can provide instant feedback

ICT can be multisensory
- multisensory learning is recommended for dyslexia
- words, sound, graphics, colour can be presented simultaneously
- auditory, visual and hands-on learning styles are catered for

ICT can enable you to work at your own pace /preserve self esteem
- it is non-critical and patient
- you can work at your own pace, taking breaks as necessary
- you can repeat sections as often as you like

ICT can provide compensation for poor literacy skills
- via read-back software and/or speech input
- via text highlighting
- via automatic spell-checking
- via predictive software

ICT can help with organisation
- through use of electronic organisers and smart phones
- by drafting and editing facilities such as cut and paste
- by mind-mapping programs

> **ICT can accommodate individual learning preferences**
> - by adapting background and foreground colours
> - by changing font size and type
> - by increasing line spacing
> - via a range of personalised settings and adaptations

2. Supporting Learning through Technology

One advantage of learning via technology is that it is generally free from the 'baggage' associated with schoolroom failure. This positivity came out in a survey by NIACE which found *a correlation between access to / use of technology and participation in education.* (Participation in Learning, NIACE, 2003).

A NIACE booklet related this specifically to SpLDs, listing some of the benefits of using technology to support learning as:
- attracting learners
- creating a positive learning environment
- extending the range of teaching and learning methods
- motivating and empowering learners
- giving learners transferable skills
- offering extra skills for employment.

(NIACE e-guidelines booklet: *Supporting adult learners with dyslexia: harnessing the power of technology*).

The above publication encompasses a range of good practice. Chapter 6 contains examples of activities which familiarise learners with the tools available on computers. Chapter 8, *Good Skills for Learners*, provides clear guidance on e-learning tools and stresses the importance of moving learners on, once they have found confidence in their ability to handle ICT. A chapter is dedicated to *Making Reading Easier*, and the booklet itself is an model of accessibility and clear presentation – but would now need updating.

By engaging with computer-based learning, individuals with SpLDs are enabled to move at their own pace rather than worry about falling behind. They are largely liberated from considerations of handwriting and spelling. Technological tools for planning, organising and navigating can provide further assistance, but only if they have been chosen with the specific requirements of that particular individual in mind *and* he or she has gained adequate skills to make the most of these programs.

Various projects and trials have established the necessity of offering a range of ICT provision to match the wide range of needs and prior experience of prisoners – from those who have never handled a mobile phone to those who are very knowledgeable about technology. A clear finding has been the need to develop more material that suits visual learners.

It is worth emphasising two important factors: firstly that a computer should never be regarded as a replacement for human learning support and secondly that some people simply fail to take to technology and find it an additional burden rather than support for learning.

They will however be obliged to come to terms with everyday applications in order to cope with on-line / digital demands on release.

Three approaches to support and self-development via technology are summarised below - all appropriate to prisoners with Specific Learning Difficulties

The Do-IT Profiler is described as a technology-based system to address some of the challenges of prisoners with learning difficulties, learning disabilities and foreign nationals with poor English. In addition to providing computerised screening and assessment, it can generate appropriate support tools. Accessibility is a key consideration, as is an avoidance of labelling; instead the Profiler indicates what learners need to work on and proposes helpful strategies. This is also a tool for tutors who want to provide differentiated learning and prison officers who should know the issues affecting prisoners on their wing. The example is given of someone on the autism spectrum for whom personal space is most important.
www.doitprofiler.com

Wayout TV has developed in recent years, introducing a second channel, called 'Way2Learn', early in 2016. This provides content created to align with different levels of study; for example, materials that support entry level and Level 1 courses. A work book and tutorial support are provided to accompany a series of programmes.
www.wayout.tv/brochure.pdf

Digital Storytelling delivered by Stretch Charity, uses technology as a means of enabling prisoners to 're-biographise' their lives, whilst gaining digital literacy and technical skills. The Charity describes itself as *facilitating confidence and life-skills through the creative arts, access to culture and new technology*.
www.stretch-charity.org

In general, computer-based provision has been found to be a good fit for learners at very different stages who progress at different speeds. The modular structure of many courses gives quick results and the all-important sense of achievement, as shown below:

I left school early, and by that time I was already in trouble with the police. I know what I'm capable of, but the fact is if you've not done it since school you get rusty. Besides, you need good maths and English to get anywhere now – and you need to know about computers.

When I'd improved my English and Maths I decided to go for a waste management course, then I'd like to go on to do web publishing so I can build a business website.
I didn't think I'd like being stuck in front of a computer, but it actually suits me to go at my own pace. It's not like any learning I've done before, and at the end of the day I'm getting something out of it. You've got to think about getting out and what you're going to do differently, and you've got to grab whatever you can to help you do it.

The current exploration of **'in-cell connectivity'** is an interesting development.

3. SpLD Considerations when using Assistive Technology / ICT

In the outside world, both students and employees with SpLDs may see the provision of 'assistive technology' as a disability entitlement, which goes some way to enabling them to compensate for their areas of difficulty. This is never a 'one size fits all' solution, more a case of 'Horses for Courses'. Assistive technology is appropriate <u>only</u> if it can enable or enhance the learning experience or task, and 'fit' the learning style of the user. Inappropriately used aids can actually form a further *barrier* to learning.

At the time of writing, full technology assessments are unlikely within prison settings, but offenders in the community, especially those taking college courses, should have the opportunity to visit an Assessment Centre in order to explore different types of assistive technology. It is always advisable to check which programs / tools will work with any planned on-line course.

There is a wealth of information on accessibility and technical support on the TechDis and Emptech websites, focusing on education / training and the workplace. Transition into work is also covered. SEE https://toolkits.excellencegateway.org.uk/about-jisc-techdis-approach www.emptech.info/wp/strategies/   Further resources are listed in BOOKLET 1 .

Education and training providers have a responsibility to ensure 'accessibility' for learners with disabilities, as far as is 'reasonably possible'. In the area of digital learning this could include assistive technology, in order to enable these learners to reach their potential. Where this technology is available, it is important to match it both to the user and to the tasks to be undertaken. It is usually necessary to provide one-to-one training in its use.

There are a number of areas to consider when people with SpLDs are on computers:

Reading from the screen

Even when reading in itself is no longer a major challenge, some people with SpLDs encounter difficulties reading from a computer screen. They find the screen too bright and perceive an uncomfortable flicker. It may prove difficult to track along the text without losing the place.

An ex-prisoner describes her problems:

I have some difficulty reading the computer screen. It seems too bright and my eyes get really sore and I have to stop working after a very short length of time. If the letters are too small then I find it difficult to keep the place and have to put my finger on the screen to help. These problems affect my concentration. The other trouble I have is that once the text has left the screen I cannot remember it so I have to print everything out. I keep forgetting what's on all those pop-down menus which is really frustrating.

Once brightness and text size have been customised for the individual, the next consideration is the colour of the text and background. Individuals with SpLDs and Visual Stress vary in what they find most comfortable, but usually they will end up with reducing the contrast one way or another. Poor readers will find text-to-speech programs invaluable; these can be set up to speak each word, sentence or paragraph. Speech can be switched on and off at will in some programs (useful for those who prefer to view text without the distraction of speech unless they encounter difficulties) and the selected text can be highlighted as it is voiced.

It may be that the major difficulty is retaining what is read on-screen, in which case additional strategies must be considered, such as highlighting key points, making notes or sketching a mind-map of content.

The *C-Pen Reader* is a hand-held device which provides a definition of a scanned word or line of text. Individual words are enlarged on the display and may be spelled out, or broken into syllables. Scanned words and their definitions can be read aloud with the product's built-in text-to-speech facility.
www.readerpen.com/

Word-processing

Some individuals with a good visual memory find the location of letters on the keyboard form a useful pattern to reinforce spelling. Touch-typing is an invaluable skill that can be gained through on-screen tutorials or touch-typing manuals – the latter should be placed on a copy holder beside the screen.

Staff should check that computer-based learning programs support on-screen spellchecking. However the helpfulness of on-screen spellchecking depends on the individual's ability to distinguish between alternatives but, at the very least, it does flag up the error. It will of course miss wrongly-used but correctly spelt words. In the same way, it is always necessary to proofread text that has been created via speech recognition, since the program may substitute words that sound similar but are not those intended by the user.

Others find that their poor typing skills hold up their thought processes - whilst searching for the correct letter keys on the keyboard they may have forgotten what they wanted to write. Dictation via a speech recognition program is the preferred method of text input for those whose thought processes are clear and structured.

When working at a more advanced level, outliners and brainstorming software are helpful to collect and organise ideas alongside the computer-based study materials. Programs should allow content to be exported – for example as an outline version to shape the form of a project or essay. *PowerPoint* can also be used in this way; the slides can be shuffled and re-arranged to help sort ideas and prioritise.

However it is important to be aware that the 'high tech' options may not suit all dyslexic learners, as Gina explains.

Someone suggested that I tried voice-activated software but I found that far from easy. I found it quite difficult to slow down my thoughts to speak them clearly enough into the computer and it was a further ordeal trying to remember all the commands. In the end I decided that I would persevere with the typing. Although I still get many of the letters jumbled and out of order, I can usually spot my mistakes with the aid of a spell checker and by reading my work out aloud afterwards.

Technology and Dyspraxia

On the whole, hardware is more important than software when it comes to dyspraxia. Having the correct ergonomic keyboard with large keys, (ideally) at least a 17 inch screen, the right chair and the right mouse for a particular individual can make a lot of difference. All the equipment must be set up in the right position for the individual concerned; feet should be able to touch the ground and the monitor should not be too high or low.

Those engaged in study who are handling a lot of information often benefit from using two screens: one for material they have researched and one to display their work.

Mice can be slowed down to make them easier to control, especially when highlighting a piece of work. Some people may find it easier to control a roller ball mouse, and others an Anir Mouse (shaped like a joy stick). If such equipment is hard to procure, staff must make a case for them as disability aids which will be required by a number of people over the years.

Since 'organisation' and 'structure' are key areas of difficulty associated with dyspraxia, mindmapping software may help at the initial stages. However 1:1 assistance will probably be needed to move from the ideas stage to producing a structured piece of work.

Technology and Attention Deficit Hyperactivity Disorder

Both *PowerPoint* and speech recognition programs have been found to be particularly appropriate for people with ADHD. In addition, mind mapping software with pictures is useful, helping both with structuring one's thoughts and retaining ideas.

Calculation Aids

Individual preferences should determine whether someone works with a handheld calculator or an on-screen version. The latter will generally offer speech, colour and magnification options. Unfortunately it is often the availability of equipment and programs that is the determining factor, rather than preferred ways of working.

Further Factors

An important consideration is the layout of rooms containing rows of computers. Often there is little desk space and some users are not facing the front, so it can be difficult to see the tutor clearly or take notes easily. Hopefully this will change as laptops become prevalent.

Strip lighting in the room may be a factor for those with acute light sensitivity. Some individuals find reading from a screen is difficult because of glare or reflections, so need to be seated where this is not an issue.

Most learners with SpLDs find interruptions or extraneous noise highly distracting, preferring to work with headphones or in their own surroundings. Moreover, they may be able to work for short periods only and need some way of relaxing or 'chilling out' between tasks.

In resettlement prisons, the Disability Employment Adviser from the local Jobcentre will hopefully become involved, along with prison Work Coaches. The issue of assistive technology should arise in discussions of Access to Work (designed to assess and provide for the needs of people with disabilities in the workplace).
Information on the Access to Work programme can be found at the end of BOOKLET 8 .

Readers of this BOOKLET are encouraged to consider appropriate use of technology for people with Specific Learning Difficulties the Exercise overleaf.

An exercise follows on **devising strategies and solutions** for difficulties experienced by people with SpLDs when working on computers.

These difficulties are listed in the left-hand column.

Firstly, consider the PROBLEMS in the central column of CHART 1 and formulate possible solutions.

Compare these with the POSSIBLE STRATEGIES suggested in CHART 2.

CHART 1

SpLD DIFFICULTY	PROBLEMS USING COMPUTERS	*POSSIBLE STRATEGIES?*
Problems tracking / keeping the place	Losing the place on the screen	
Weak short-term or working memory	Remembering info. on previous screen Retaining instructions	
Sequencing difficulties	Remembering the order of operations Entering web addresses incorrectly	
Meares-Irlen Syndrome / Visual Stress	Finding the screen too bright, glare of black text on white background or background colour 'uncomfortable'	
Co-ordination problems (linked with Dyspraxia)	Difficulties moving the mouse. Hitting the wrong key, problems double-clicking. Slow work speed	
Lack of confidence Low self-esteem	Fear of failure and of being shown up	

CHART 2

SpLD DIFFICULTY	PROBLEMS USING COMPUTERS	POSSIBLE STRATEGIES
Problems tracking / keeping the place	Losing the place on the screen	Readback software (which highlights word being read) and headset. Screen 'post-its'
Weak short-term or working memory	Remembering info. on previous screen Retaining instructions	Print out key information. Take screen grabs of useful menus and options available.
Sequencing difficulties	Remembering the order of operations Entering sequences incorrectly Structuring written output	Go through the sequence with the learner. Print off instructions. Sequences e.g. user numbers must be chunked and checked Voice recognition software, a headset and a preparatory script, enables the individual to dictate content.
Visual Stress / Meares-Irlen Syndrome	Finding the screen too bright, glare of black text on white background or background colour is 'uncomfortable'	Dim screen brightness. Adapt the background and foreground colours, according to the learner's preferences.
Co-ordination problems (linked with Dyspraxia)	Difficulties moving the mouse. Hitting the wrong key, problems double-clicking. Slow work speed	Adjust speed of operations. Try different types of mouse e.g. rollerball. Use a larger keyboard. Try voice recognition software with headset to minimise mouse and keyboard use..
Lack of confidence Low self-esteem	Fear of failure and of being shown up in front of others. Unwilling to try new ways of learning	Solutions to the above problems would help with confidence. Highlight positive aspects of SpLDs eg creativity. Explain that they are simply different rather than less able.