AbilityNet factsheet

A Dyslexia “Toolkit”.

Computer-based ideas that can help to produce written work that reflects ability.

Introduction

Dyslexia? Specific Learning Difficulty? Whatever we call it, this frustrating and ill-understood problem means that in some people there is a clear mismatch between their intelligence and verbal skills and their ability to write, read or handle numbers. Unexpectedly, even strangely, they cannot produce the quality results we feel they are capable of.

These notes describe a range of ideas, all of them based on computer use, that can go some way to help people bypass these difficulties and offers the potential for individuals to express themselves more appropriately. They deal mostly with writing, and they are brief and introductory. They do not deal with skills training or attempting to put right what is apparently wrong: they are ideas for “getting on with it”, for “getting round” the difficulties.

No two people are alike. The best solution for each person is likely to be a selection from the ideas described below. Ideally one would like people with these difficulties to have an opportunity to see and try them all - but in the real world this may not be possible. Thankfully some of them are free, or relatively inexpensive.

We would be very happy to help with further detail and explanation if you need it. And we’d be pleased to talk through a situation with you to see if we, or others, could help further.

Notes:

Some examples of software are listed here. No attempt is made to produce complete lists of alternatives. Contact us if you want more detail.
The examples are based on IBM-compatible PCs, running Windows. For similar approaches on other types of computer contact us again.
Suppliers and additional contacts are listed at the end of this fact sheet.

Plan it

It really does help most people if they decide what they want to write before they start. At its simplest, this could mean talking through what is to be written first: or they might make brief written notes.
Some word processing packages have a facility to develop an outline before starting to write in earnest. An example is the “outline” facility (view-outline) in Microsoft Word.
There are also some programs especially designed to help with making notes and organising thoughts ready for writing. “Inspiration” is an example. It is a computer-based idea mapping tool, essentially visual, that can be used for remembering and organising ideas for written work. From Iansyst.

Using a keyboard

For some people the task of handwriting recognisable letters in straight lines is very hard work, demanding concentration and mental energy not then available for the task of deciding what to write. The use of a keyboard can, on its own, make a positive difference. If the right key is pressed, then a well-formed letter appears, in a straight line, immediately to the right of the last.

Coloured and bigger key-tops

Big, bright letters on keys sometimes help people to find the keys more quickly and with less effort. For some, they seem to “cut through” difficulties in recognising and locating the right letter. They can be stuck onto the keys of any keyboard.

Examples:

- Big, bold upper case key-tops, yellow/black or white/black, are available from Techno-Vision Systems. Approx. £15.
- Lower case alphabetic letters, yellow/black, are available from Granada Learning Ltd – SEMERC. Approx. £10 for sheet with 5 sets.

Coloured, Bigger, and Easier to Read Letters on the Screen

If you have a colour screen then you can **choose the colours** you like best and find most helpful for background and for the letters themselves. Many people find this can make a big difference.

Larger letters can prove helpful, even when vision is not a problem. Letter size can be varied by changing the "font" size or, in some word processors, by using a "zoom" facility.

It may even be that the differences in appearance between one **"font", or type style,** and another can be important. Try some alternatives: compare a serifed font like 'Times New Roman' with a non-serifed font like 'Arial': a non-proportional font like '`Courier`' makes the printed length of a word reflect the number of letters in it. (`We/ill` compared with we/ill). (This document is in Arial):

For some people **double (or 1.5) spacing** can also help a lot. (Remember you can always put the whole document back to single spacing before you print it).

Your manual, or on-screen help, should help you find out how to try these ideas.

Ordinary Spell Checking

All word processing systems have built-in spell-checkers. These are not designed for the specific difficulties of dyslexics, and they look much more at alphabetic than phonetic similarities.

Note that the "cleverness" of spell checking tends to improve a little in each new version of a word processor.

Note that some 'text to speech' programs (eg TextHelp) can read the options offered by spell-checkers.

Special and Automatic Spell Checking within your Word Processor

Some word processing systems have the ability to spot and automatically correct spelling errors as you write. In Microsoft Word, for example, this facility is called **"AutoCorrect".** One can very easily add mis-spellings to an "AutoCorrect table" and these will be automatically changed to the correct spelling as the user hits the space or full stop after the word. Some people have achieved dramatic improvements by adding, with help, their most frequent 50 (or 100, or ...) problem words to the table.

Special Additional Spell Checking Programs

These attempt to meet the special needs of people with significant difficulties with spelling. They try to offer correct words for far more misspellings and offer a variety of techniques, including synthetic speech, to help with making the right choice. They may have value in particular cases when the benefit outweighs to relative complexity of their use.
(Call for more detail if required).

Getting the Computer to Expand Abbreviations

The computer can be asked to type lots of characters for you by setting up abbreviations that it will expand into phrases or paragraphs. Most systems will have at least one way to do this. Certainly, anything the computer types for you can be set up to be right every time, and takes no time!
In Microsoft Word, for example, there are three ways, built in to the system. The "AutoCorrect" facility (above) can be used - y, s, space could produce "yours sincerely". "AutoText" works in a similar way. In Word 7 and later autotext entries are automatically offered as you type. And "macros" can handle commands as well as text and graphics.

A little program that expands abbreviations in any Windows program is "Abbrev", from the Ace Centre. Abbreviation expansion is also included in some prediction programs. (See below).

Speech Output, (or text to speech)

With a sound card and speakers in your computer you can get the computer to read back, in synthesised speech, all or part of what has been written. This might well reveal an error that would otherwise be missed - even by a spell-checker. For example: the writer types; "They was lots men there" when he wants; "There were lots of men there". The spell-checker won't help with this, but the problems may be obvious when listened to, giving a second chance to get it right - perhaps by listening to this phrase again, or each word in turn.
For a modern PC there are many packages available that do this. If you need advice on this …
The company "Iansyst", and AbilityNet (Malvern), are specialists and can suggest and supply a variety of solutions for dyslexia, including speech synthesis and associated software.

Prediction.

There are a number of separate programs that run alongside word processing packages that will predict, or "guess", what you are about to type and complete the word or phrase for you. These systems can add words or phrases as you type, or you can add the words and phrases you want predicted, (or both!). Some will predict words that follow the word just typed.
For example: you type a 'c': the system might offer:

1. can
2. college
3. computer
4. couple
5. chat

Choose 3, the computer types "computer", and immediately offers:

1. programmer
2. error
3. system
4. supplier
5. game

Examples are:

- "Prophet" from The Ace Centre. Approx. £60. (A form of "sale or return" is available on Ace Centre software).
- "Penfriend" from Crick Software Ltd.
- "Co Writer" from Don Johnston
- And "Wordbar" offers word choices in a different way, perhaps especially useful for older learners and writers with significant writing difficulties. From Crick Software.

Help with words that sound similar but are spelt differently, (homophone checking), or with any other words confused one with another.

Other programs running alongside a word processor can help with words of similar sound that can be confused one with another. One (SoundsWrite) will highlight any word that may be confused with another because of its similar sound and will offer possible alternatives, with explanations. Some alternatives and explanations are part of the program when you get it: others can be added to meet individual needs. Remember, these can be **any** words that are confused, such as similarly spelt words.

For example, imagine the user types "bought". The system puts on the screen:

1 bought with money
2 brought did bring

These were put into the checker in this form by or for this user. They get the clue they need and hit 1 or 2 to get the right choice. Other familiar examples are "weather/whether", "their/there/they're", "access/excess".

An example of such a program is:

- **"**Sounds Write", from the Ace Centre, as above. Approx £30.
- TextHelp "Read and Write" also includes help with homophones.

One program that incorporates several of the above ideas

A single software package called "TextHelp" (Current Version is called "TextHelp Read and Write") provides the following facilities from the list of ideas:

- Screen magnification for bigger characters on the screen;
- Spell checking - after you've typed, or word-by-word as you type;
- Abbreviation expansion;
- Speech output, word-by-word, sentence-by-sentence, or any selected text;
- Prediction;
- Homophone checking etc: checking words with similar sounds or spellings;

"**Read and Write**" is a product of **Texthelp Systems** and is sold and supported by **Iansyst**. Approx. £115 (single user).

Special Word Processing Programs

A variety of 'special' word processing programs are available that incorporate features that can help. They may be designed to be simple to use in general: they may have integrated prediction and text-to-speech. One example also incorporates the 'Franklin' phonetic spell checker and thesaurus. This is: Write:Outloud. From Don Johnston Special Needs. Approx £71.

Voice Recognition

Modern voice recognition systems, running on personal computers, are remarkable in their ability to understand spoken words and type them. Until recently the words had to be spoken separately, with a small gap between, and this will still be the best technique for some people, but there are now systems that take "natural" or continuous speech. If properly used, the system will become more accurate and faster with use.

In fact they may appear to be a “magic wand”, waving away the problem of dyslexia. **They are not!**

No recognition system gives 100% accuracy. But they should get better and better. If recognition errors are not properly corrected the system will not improve. So the user must either be able to recognise errors and spell the right word properly, or must achieve the same result with help .... getting started is much harder for poor readers ….

.... and learning to use the system effectively requires a real commitment. **This option requires very careful consideration. We would be delighted to talk with you about voice input in more detail if you wish.**

The products change so fast that you are well advised to tap into some independent expert help. If you are interested in this option, check with us and ask for our fact sheet on the subject.

Voice recognition, with integrated speech output

Many versions of voice recognition systems have the capability to read back dictated text to the user in synthetic speech. This can help a dyslexic user to check that what has been “typed” is indeed what they intended to say. But one or two systems have been specifically developed to help people with dyslexia. They have additional facilities like ‘echoing’ each word as it is spoken and the ability to read out the options presented when recognition errors are being corrected.

You may wish to look at Keystone Lite for Windows 3.11 (this will run with Dragon Dictate) approx.£125, Keystone Screen Speaker for Windows 95, 98 or ME (this will run with Dragon Dictate or Naturally Speaking) approx. £250, and Keystone Speechmaster (includes Screen Speaker and Naturally Speaking) approx. £295 from Words Worldwide.

Scanning with optical character recognition (OCR)

By attaching a scanner and loading OCR software on to a computer it can reliably, if not always perfectly, “read” typed or printed documents and make them available to you in your word processor. This could be used to put a piece of printed information into a document without re-typing, alternatively, and more relevant for a dyslexic user, it could work as a reading machine,

perhaps with the help of a speech output approach as described in **Speech Output** above.

There are a number of alternatives possible and care is needed. If this technology is of interest, contact us again.

Suppliers

AbilityNet,
Hassel House, Unit 6, Link Industrial Estate, Malvern, Worcestershire WR14 1UQ
Tel: 01684 563684.

Ace Centre, 92 Windmill Road, Headington, Oxford, OX3 7DR.
Tel: 01865 763508.

Crick Software Ltd., 35 Charter Gate, Quarry Park Close, Moulton Park, Northampton NN3 6QB
Tel: 01604 671691.

Don Johnston Special Needs, 18 Clarendon Court, Calver Road, Winwick Quay, Warrington, WA2 8QP
Tel 01925 241642.

Granada Learning Ltd – SEMERC
Granada Television, Quay Street, Manchester, M60 9EA
Tel. 0161 827 2966.

Iansyst
The White House, 72 Fen Road, Cambridge, CB4 1UN
Tel. 01223 420101.

Technovision
76 Bunting Road Industrial Estate, Northampton
Tel. 01604 792777.

Texthelp Systems, Northern Ireland,
el 01849 428105.

Words Worldwide (W3)
Ash House, Belle Villas, Ponteland, Newcastle upon Tyne, NE20 9BE
Tel 01661 860999.

Some additional useful contacts

- **The British Educational Communications and Technology Agency** (BECTa) have a Special Needs section who have a specific interest in dyslexia/SLD. They are a resource for teachers and other education professionals but will help if they can with information. They publish a free dyslexia information sheet. Tel 024 7642\6994.

- **British Dyslexia Association (BDA)** Helpline tel. 0118 966 8271.
  Head office: 98 London Road, Reading, RG1 5AU
  Tel: 0118 966 2677

- **Helen Arkell Dyslexia Centre**, Frensham, Farnham, Surrey GU10 3BW.
  Tel: 01252 792400.
  Web: www.arkellcentre.org.uk
  Email: general_enquiries@arkellcentre.org.uk

- **Iansyst**. A supplier of many hardware and software items designed to help with dyslexia. Tel 01223 420101.
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- **AbilityNet** (Malvern). We can supply computers and computer solutions with emphasis on individual need and support. We can build any of the items listed above into a single system and have a sound understanding of the needs of people with written language difficulties. Tel. 01684 563684.

And finally ....

Please remember that we will be delighted to talk with you and help in any way we can, to look at an individual situation or advise in more detail.