

# IT and Dyslexia at 16+

*By Bill Anderson*

By the time the dyslexic student has reached the age of 16, he is likely to have put GCSE behind him and will be preparing to tackle A Levels, NVQ's, or some other form of Further or Higher Education.

There are two main types of software he may need.

If his literacy skills are significantly low, he may well benefit from some of the teaching/drill programs which are available. These are for solo, student/teacher, or small group work, and will either be a continuation of work already started, or new if he has only recently been identified as needing specific help. For the purposes of this leaflet, it must be assumed that the teacher has available, and is familiar with, these programs.

The other type of software comes under the general heading of applications. These include word-processors, desk-top publishing, spreadsheets and databases. Sometimes several of these are bundled together in one suite, as, for example, Microsoft Works. Other applications are very specific tools, such as Inspiration or textHELP! Read and Write, both of which will be mentioned later.

Any reasonable computer that can run a word-processor will suffice, though a Pentium or higher is recommended. A spell-check and thesaurus will be included in any recent word-processing application. The only other essential equipment is a printer. Any ink-jet printer is adequate.

It should be mentioned that in Tertiary education word-processed

work is becoming a requirement rather than an option. It is also the stage at which institutional help and support are most easily available.

This could be due to the Department for Education's system of Disabled Student's Allowances, under which dyslexia is classified as a disability.

The biggest advantage of a computer is that multiple drafts of a piece of work are no longer required, so the attendant problems of repeating spelling mistakes, making new ones, omitting words or even whole lines or paragraphs, quite apart from the drudgery and time-wasting of seemingly endless copying out, are all avoided. The work is typed in once, saved, and printed (hard copy, in the jargon). Proof-reading hard copy is preferable to trying to do the job on-screen, as the whole text is available at a glance - this removes the difficulties associated with sequencing and direction experienced by many users who can only see part of a page at a time on the monitor. The hard copy has corrections and alterations made on it, as usual. The corrections and changes can then be transferred to the text on-screen; paragraphs can be moved, added or deleted, punctuation adjusted, words altered. Best of all, from the student's point of view, is that he has produced a piece of work that looks just as good as anyone else's - the problem of poor handwriting has also been removed.

Many dyslexic students work with a restricted vocabulary, preferring to use words they can spell rather than risk mistakes on ones with which they are not confident. The spell-check will free them from this inhibition and allow them to use their known, rather than their written, vocabulary, finding any mis-spelt words and displaying what are likely to be the correct spellings. It is also possible for them to add to the dictionary, including subject-specific words as they arise. And if the student wishes to vary his vocabulary, he can call up the thesaurus and look for suitable

alternatives. textHELP! Read and Write is also very helpful at the writing and proof-reading stages. This application reads text, from single words to the whole piece, as selected. This enables the student to hear what he has written, not what he thinks he has written. Errors in grammar, missing or repeated words, and spelling mistakes are consequently much easier to find. It is also possible to hear the suggestions on the spell-check, which makes selecting the desired word easier. (*Details of textHELP! Read and Write are in the Patoss Resources List*)

Many dyslexics have visual problems. Scotopic sensitivity and/or oculo-motor problems - which lead to omissions, loss of place, and mis-readings - are common. On the computer the size and colour of the print, and the brightness and contrast of the screen, can be adjusted till the user has found the combination that is most satisfactory for him. Hard copy, particularly draft versions, can be produced in large print on coloured paper to help overcome the reading problems caused by poor visual skills.

A copy-holder should be regarded as an essential piece of equipment for those with visual problems, especially the finger-pointers, when they are working from any reference text, which would include the current hard copy. If someone has difficulty keeping his place on a line, or going from the end of one line to the start of the next, when reading ordinarily, it is obviously going to cause additional problems for him to move his eyes from a vertical monitor screen to a horizontal document at a different focal length, and back, without constantly losing the place. With the copy-holder correctly set beside the monitor, the eyes move sideways instead of sideways and down, and the focal distance from eyes-to-screen and eyes-to-page is as close to constant as possible. The copy-holder being almost vertical means there is very little adjustment of focus needed between the top and the bottom of the page. When using the line-marker on the copy-holder and the cursor on the screen, losing the place becomes much less of a problem.

Laptops are sometimes recommended, especially for making notes in lectures. If the student has visual problems, the screen is not easy to read; if he has poor motor skills, the tracker-ball or joystick cause problems; and if his typing skills are not better than his handwriting skills, there is little point. Dyslexics are often unable to write and listen simultaneously; they will not miraculously acquire this ability through possession of a keyboard. The main justification of a laptop is to have it available when text-bashing is necessary, either in lectures or when researching in a library. If the typing skills are good enough, or dyspraxia makes handwriting painful and difficult, a better solution is an Alphasmart (full details in Patoss Resources List). At only £200 and with a very long battery life, the Alphasmart offers a good solution to the text-bashing problem. The text is not particularly clear, but that is largely immaterial; all notes made can be down-loaded to a desktop PC, an Apple or an Acorn for spell-checking, laying out and printing, which is what the notes are really for.

It is imperative that dyslexics have adequate computer time. Those with good keyboarding skills may type quickly enough, but considerable time can be needed for spell-checking, manipulating text, sorting ideas out on screen, and using the thesaurus. Those with poor sequencing ability can get lost and confused if they have to wend their way through too many windows and menus. If computer time is being allocated, it should be remembered that they need more time than non-disabled students. Those without good key-boarding skills need to acquire them; a good typing tutor, such as Mavis Beacon Teaches Typing, or Flying Fingers (there are several other good ones available) should be made available to them.

They also need an environment with as few distractions as possible. Much more than other students, they tend to lose concentration easily if there is noise from other users in a computer room. They also have more than their share of

inhibitions, and will not be able to work effectively if people are looking, or might look, over their shoulders and comment on their spelling or the speed at which they work. This can make using computers a trial of nerves rather than a solution to their problems.

Sequencing and organisation of ideas and material are also problems that need addressing. Since many dyslexics work visually or diagrammatically, they are increasingly being shown how to create and use spider-grams or mind-maps. Excellent though these are, they unfortunately often cause problems - running out of space, usually in one corner of the page; an inability to include notes and ideas clearly, if at all; the familiar need to make several drafts before getting it right. Applications such as Inspiration (full details in Patoss Resources List) or Thinksheet (a new version currently in development) will enable them to prepare spider-grams/mind-maps on screen and allow them to manipulate and alter them, and add notes where and when they choose, as well as have everything they have entered presented in linear, indented, note form. Easy and intuitive to use, they make all tasks, from the preparation of a 1000 word essay to a 10,000 word dissertation, more simple and thorough than they imagined was possible.

It could be argued that applications like these are just as important as a word-processor, a spell-check, or even a specialist tutor. They provide the tools that enable the dyslexic to achieve the one goal that has always been elusive - the magic combination of competence, confidence and self-sufficiency that makes successful independent working possible.