

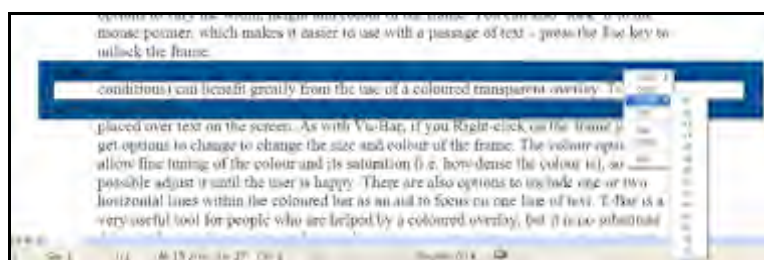
There is a wide variety of computer software available to support people with dyslexia and other reading and writing difficulties. Many schools and colleges have sophisticated packages, such as *TextHelp Read and Write Gold* and *ClaroRead*, which provide useful support tools, but these can be expensive for parents and adults with literacy difficulties to purchase for home use. Fortunately, there are a number of free, or low-cost, options available for people to use at home. Some of these programs are as good for a particular task as the more expensive packages, though none offer the same range of comprehensive facilities. If a child or adult needs a broad range of support tools there can be advantages in using one of the packages, but, on the other hand if a particular pupil just needs basic text to speech support and is using Microsoft Word, then *WordTalk* should be a perfectly satisfactory tool for meeting their needs.

All of the software discussed below is free, unless otherwise stated.

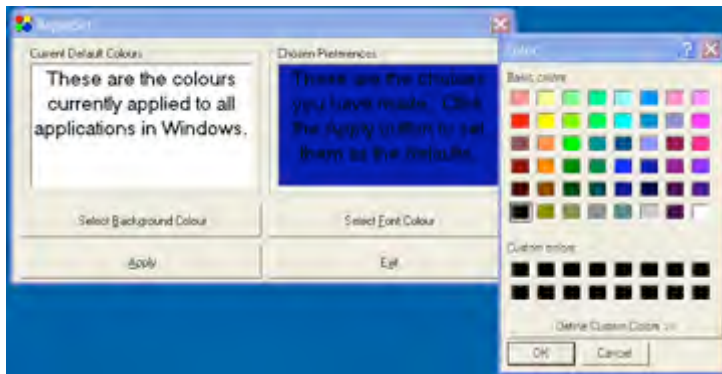
### Visual Support

Many people can benefit from being able to use different colour combinations for text and the background, and can also make use of other tools that change the visual display of information on the screen.

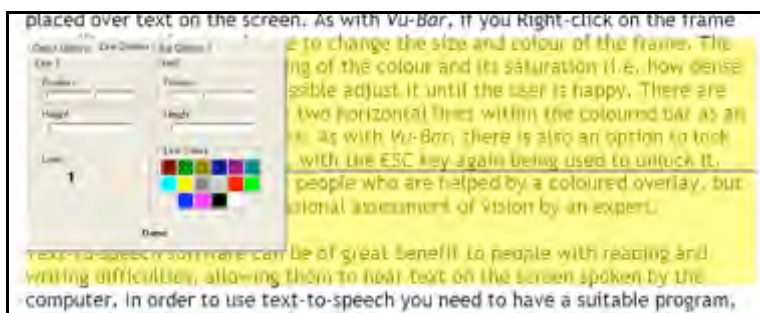
**Vu-Bar** (from <http://www.fxc.btinternet.co.uk/assistive.htm>) Many of the low cost programs mimic recognised 'low tech' techniques that help a reader to focus on a piece of text. *Vu-Bar* takes a technique that involves using a sheet of card with slots cut in for use as a window and transfers it to a computer to create a rectangular frame that focuses on a single line of text. When you run *Vu-Bar* you get a coloured frame that can be moved around on-screen and placed on top of any text so that only one line is visible. If you Right-click on the frame, you will get options to vary the width, height and colour of the frame. You can also 'lock' it to the mouse pointer, which makes it easier to use with a passage of text - press the Esc key to unlock the frame.



**RapidSet** (from <http://www.fxc.btinternet.co.uk/assistive.htm>) Some people dislike using the standard black text on a white background offered by most word processors and prefer different colour combinations on screen. These colours can be changed by using the Display Control Panel, but this is very fiddly. *RapidSet* provides a quick and easy way to change text and background colours. Note that it doesn't change just the text in a document on screen, but changes other text as well, which can lead to unexpected results.



**T-Bar** (from <http://www.fxc.btinternet.co.uk/assistive.htm>) People with Myers Irlen syndrome (and other dyslexia-related conditions) can benefit greatly from the use of a coloured transparent overlay. *T-Bar* transfers this technique to a computer, providing a coloured transparent mask that can be placed over text on the screen. As with *Vu-Bar*, if you Right-click on the frame you will get options to change to change the size and colour of the frame. The colour options allow fine tuning of the colour and its saturation (i.e. how dense the colour is), so that it is possible adjust it until the user is happy. There are also options to include one or two horizontal lines within the coloured bar as an aid to focus on one line of text. As with *Vu-Bar*, there is also an option to lock the bar to the mouse pointer, with the ESC key again being used to unlock it. *T-Bar* is a very useful tool for people who are helped by a coloured overlay, but it is no substitute for a professional assessment of vision by an expert.

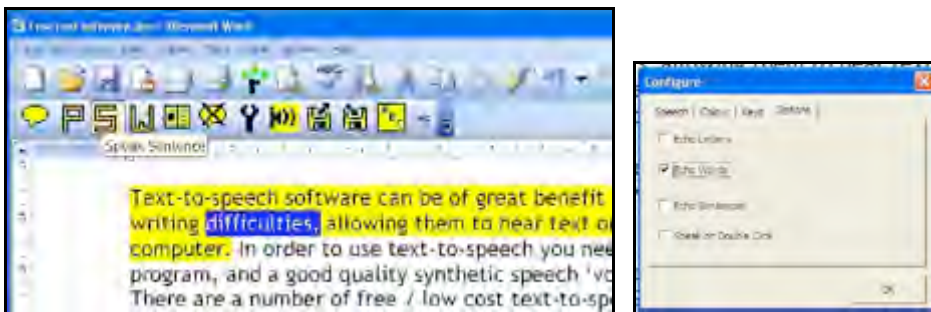


**ssOverlay** (from <http://www.fxc.btinternet.co.uk/assistive.htm>) can be used to place a coloured overlay over the entire screen. This removes the need to move the overlay, as in *T-Bar*, but has the disadvantage of making menus and other items outwith the text window more difficult to read.

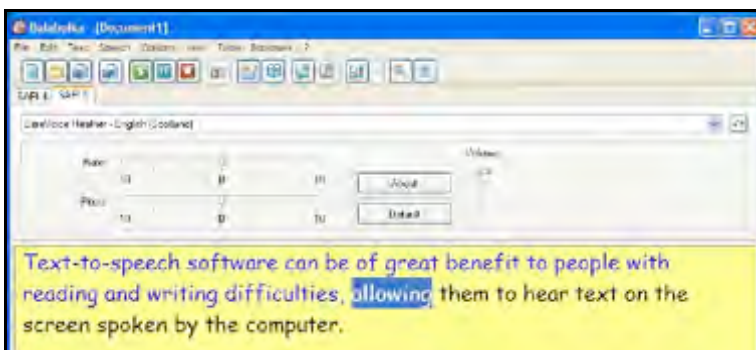
## Text to Speech Software

Text-to-speech software can be of great benefit to people with reading and writing difficulties, allowing them to hear text on the screen spoken by the computer. In order to use text-to-speech you need to have a suitable program, and a good quality synthetic speech 'voice' on your computer. There are a number of free / low cost text-to-speech programs available, e.g. *Balabolka*, *TextAloud*, *Natural Reader*, *Ultra Hal Reader*. The quality of synthetic speech voices has improved significantly in recent years. Windows and Mac computers generally come with reasonably good voices installed, but you will usually have to pay extra for a high quality voice. Schools in Scotland can access 'Heather', the high-quality voice available from <http://www.TheScottishVoice.org.uk>, which can also be provided for home use by children with additional support needs. It is available for other people, but there is a licensing charge. Microsoft produced a high quality free voice, Anna, for the Vista operating system, which can also be used with Windows XP.

**WordTalk** (from <http://www.wordtalk.org.uk>) is a free add-on for *Microsoft Word*, developed by Rod MacAulay at TASSCC in Aberdeen, which provides a number of text-to-speech facilities. It can be used to read text from a specific point in a document, or to read individual paragraphs, sentences and words, or a selection of text. Words and sentences are highlighted as they are read to make it easier to follow the text. In addition to reading existing Word documents, *WordTalk* can be set up to read letters, words, or sentences as they are typed in a new document, allowing the user to 'hear' mistakes as they are made. *WordTalk* can also be used to create an MP3 or WAV sound file from a document that can be played back with an MP3 player. One of the most useful facilities is the addition of text-to-speech facilities to the spellchecker. The *Word* spellchecker is quite good, but it presents a list of options for a mis-spelled word that can be difficult for a person with reading difficulties to use without text-to-speech support. If you need text-to-speech in an application other than Word it is generally possible to copy the text and paste it into *Word* so that the text can be read with *WordTalk*.



**Balabolka** (from <http://www.cross-plus-a.com/balabolka.htm>). Many people have access to *Microsoft Word*, but what can you do if you don't? *Balabolka* is a very good, free text-to-speech program. Text needs to be copied from the original document and pasted into *Balabolka* before it can be read. *Balabolka* can use any high quality voice available on your computer and the font, text and background colours can be adjusted to suit your preferences. The program can be used to create MP3 and WAV audio files, which can be played back on a computer, or MP3 player. *Balabolka* has a facility for adjusting the pronunciation of words, e.g. local place names, so that they will sound right.



## Reading Electronic Books

It is possible to use *WordTalk*, or *Balabolka* to read an electronic book, provided that it is in the correct format (a *Word* document in the case of *WordTalk*), but there are other programs better suited to this task.

**Microsoft Reader** (from <http://www.microsoft.com/reader>) is a free program for reading eBooks in .LIT format. The *Reader* web site has links to sources of electronic books in this format. Note that it is generally necessary to pay for 'modern' books in this format, though many 'out of copyright books' are available. You can also convert *Word* documents into eBooks by using the free *Read in Reader* plug in which you can download from

<http://www.microsoft.com/reader/developers/downloads/rmr.aspx>. *Reader* provides reasonable text-to-speech and navigation tools.

**Adobe Reader** (from <http://www.adobe.com>) has very basic text-to-speech functions (go to **View > Read OutLoud > Activate Read OutLoud**) to turn this on. Text-to-speech functions are very limited - you can choose to either read the entire page, or the entire document. *Adobe Reader* can be used to read files in Adobe .PDF format.

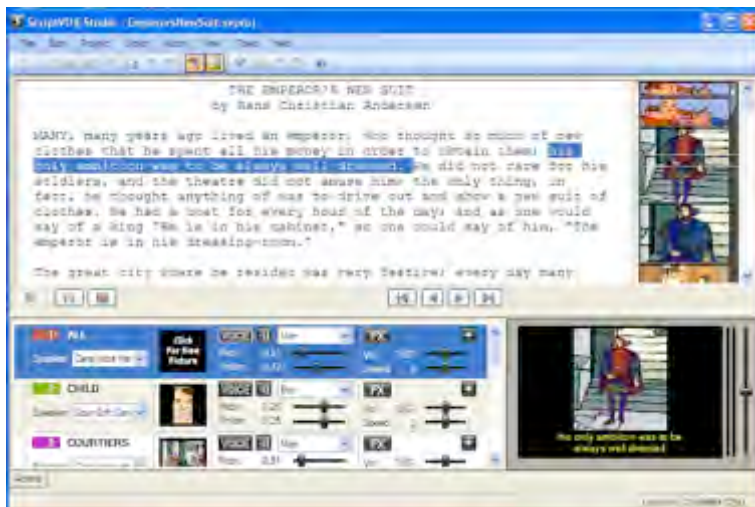
## Reading Web Pages

CALL Scotland has produced a free report that compares a number of different programs that can be used to read text from web pages. It is available from <http://www.callscotland.org.uk/tinyurl?item=webreaders>. We recommend that people use **ClickSpeak** (free from <http://clickspeak.clcworld.net>) with the *Firefox* web browser. Options for Internet Explorer are less clear. We currently suggest considering the free version of **NaturalReader** (from <http://www.naturalreaders.com>) or **Panopreter Plus** (from <http://www.panopreter.com> - free 30 day trial, thereafter \$29.95) with *Internet Explorer*.

## Engaging with Text

It is very helpful for people to be able to engage with text, taking sentences apart, putting them back together, considering the meaning of text, etc.

**ScriptVox** (from <http://www.screamingbee.com> - free 30 day trial, thereafter a single payment of \$34.50) is very useful for making text with dialogue much more interesting. The program can be used to set up the text so that different computer voices read different parts in the story, making a sound recording, e.g. an MP3 file, much more interesting.



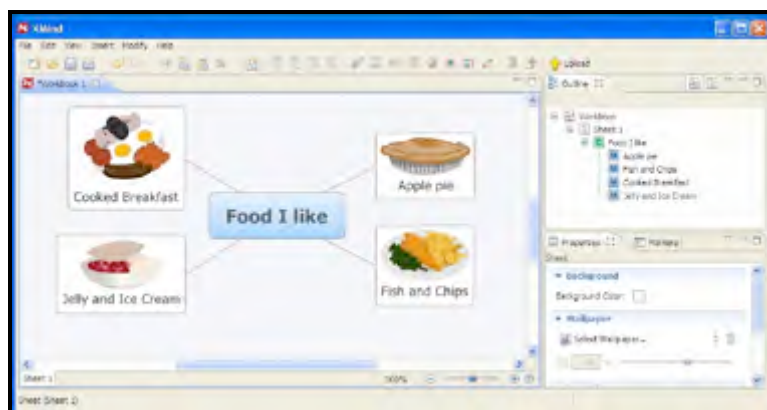
## Organising your Thoughts

People with dyslexia are often good 'visual thinkers' and can benefit from the use of mind-mapping techniques to place their thoughts on paper and organise them into a sensible structure. Commercial software products, such as *Inspiration*, *Kidspiration* and *iMindMap* can be used to produce Mind Maps, which can then be used to create a structured document. There are two free organising programs worth considering:

**FreeMind** (from <http://freemind.sourceforge.net>) is powerful, but difficult to use. The documentation and help files are presented in the form of mind maps, but are actually difficult to use.

**XMind** (from <http://www.xmind.net>) is less powerful, but easier to get started with than *Freemind*. Starting with a Central Topic, it is possible to add Topics and Subtopics and

organise them into a sensible structure. *XMind* does not come with images, but it is easy to import pictures from any clip-art source that you have available.



There are also a couple of online organisational programs that are worth considering:

**Webspiration** (currently a free Beta version at <http://www.mywebspiration.com>.) This is very similar to *Inspiration*, allowing the use of a wide range of symbols and connectors to create your mind map. The visual mind map can be translated into a text outline, allowing ideas to be 'fleshed out'.

**Bubbl.us** (free at <http://www.bubbl.us>) is a simpler tool to use, but is restricted to the use of text for showing central ideas.

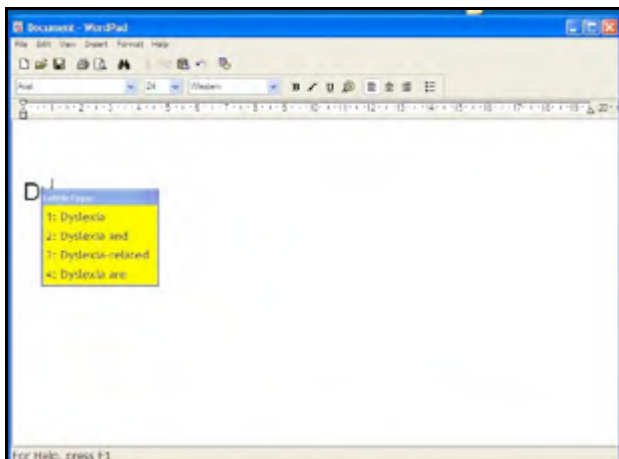


## Word Prediction

If a person generally knows the first three or four letters of a word, but struggles with the rest of the letters in a long word, or has a physical disability that makes typing difficult, word prediction (or word completion) software can be useful. This is an area in which the commercial products (*ClaroRead*, *Co:Writer*, *Penfriend*, *Read and Write Gold*, etc.) are generally far better than the 'free' programs (*Let Me Type*, *Typing Aid*). Unlike the commercial products, the free programs do not come with built-in word lists, which can be used to provide appropriate vocabulary depending on the age and writing level of the user. It is possible to use existing text, or word lists available on the internet, but this can be a hassle and the vocabulary may not be appropriate for the user. A further disadvantage with the free programs is the lack of any text-to-speech support, which can help people with reading difficulties find the word they are looking for in a list of options.

**Let Me Type** (from <http://www.clasohm.com/lmt/en/>) works with most Windows programs as a word completion program, predicting words on the basis of the user's previous writing, or on documents that have been analysed. If the user is writing on a particular topic, it will help if the system has analysed core topic vocabulary beforehand. Check the program settings carefully before you use it as some of the defaults are odd, for example the facility to add a

space at the end of a word is turned off. The program may capture anything that is typed, which could include spelling errors and passwords, so be very careful.



## Speech Recognition

Although it is certainly not the answer to all writing needs, speech recognition can be useful for many people. The most effective program is *Dragon NaturallySpeaking*, but this is quite expensive and there are no trial versions available. *SpeakQ*, available from <http://wordq.com> is the main alternative. It has a nice interface for poor readers and a 30-day trial version is available, but the level of recognition is not as good as that in *NaturallySpeaking*. The *Microsoft Vista* and *Windows 7* operating systems have a speech recognition program built into it, which is actually very good. We would be wary about using it generally in schools as there is little support material available, but it can be tried on a one-off basis to give an idea of whether somebody is likely to be able to use speech recognition.

## Find More!

This list is by no means comprehensive - it is intended to provide a starting point for anyone looking for free / low-cost utilities to support people with dyslexia. Here are some web sites that provide more free software to support people with dyslexia and other disabilities:

<http://www.rsc-ne-scotland.ac.uk/eduapps/accessapps.php> - **Access Apps** is a collection of free utilities that can be run from a memory stick, without any need to install software onto a computer.

<http://www.rsc-ne-scotland.ac.uk/eduapps/mystudybar.php> - **My StudyBar** brings together a collection of free software to support Planning, Reading and Writing by way of a single easily accessible toolbar. It also includes the Orato text-to-speech utility and tools to support students with a visual impairment.

<http://www.oatsoft.org/> - OATS is a collection of free assistive software that can be downloaded and run on your computer.

Also, be sure to check the Blog on the CALL Scotland web site -

<http://www.callscotland.org.uk/About-Us/Blog/> . We use it to provide news and updates about the use of software and hardware to support children with additional support needs in schools.