## Handout 7

### Using ICT to support dyslexic learners

<table>
<thead>
<tr>
<th>Strategy, tool and/or program</th>
<th>Dyslexia-friendly outcomes</th>
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<tbody>
<tr>
<td>Alter format options onscreen or on interactive whiteboard, eg. background colour, font size, style and colour; use zoom, line and paragraph spacing.</td>
<td>• Support for pupils with visual difficulties, relieves visual discomfort, reduces glare, offers greater clarity of dense text, for reading and recording.</td>
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| Add speech support to existing programs, applications and web pages, eg. a text-to-speech program with MS Word. | • Enables pupils to both see and hear all text onscreen or typed text as it is entered  
• Aids memory, clarifies unknown words or phrases and enables self-correction  
• Allows pupils to work more independently, provides reassurance and creates a non-threatening environment  
• Offers pupils access to all selected text in most situations. |
| Use literacy programs with speech options, eg. talking books, spelling and phonic games and activities, talking wordprocessors and on-screen wordbanks. | • Speech support is essential especially for literacy activities such as reading, spelling, phonics and writing. Pupils can hear words in games, spellings to practise, spellcheckers, instructions and help menus  
• Auditory repetition of any text can support weak memory skills and increase independent learning  
• Encouraging comments made in interactive games and tasks can increase confidence, success and self-esteem. |
| Using wordprocessors to record written responses (preferably with speech support), eg. 'Textease', 'Talking First Word', 'Clicker 5', 'Word' with text to speech program, portable writing aids. | • Enables pupils to edit easily using copy, cut, paste, delete and undo options etc. avoiding unnecessary copying out and reducing frustration  
• By using a talking wordprocessor pupils can hear text as they type enabling better self-correction  
• Typed text is clear and easy to read for both writer and reader  
• Typed text supports pupils who find handwriting or letter formation difficult, especially in extended writing tasks. |
| Using on-screen wordbanks or predictive tools with speech support, eg. 'Clicker', 'Wordbar', wordbanks available with talking wordprocessors, 'Penfriend', 'TextHelp'. | • Pupils can select a from a wide range of vocabulary in different subjects, styles and genres to express their true ability, as opposed to what they are able to spell or type at speed  
• Words or phrases can be heard before selection, enabling a more informed choice  
• More sophisticated program tools will explain context or homonyms  
• Words entered into a text from a wordbank or predictive tool will speed up the writing process, reduce the number of keystrokes and support spelling  
• Pupils are likely to finish tasks more quickly and concentrate on content rather than typing or spelling skills. |
| Use portable writing aids, eg. portable wordprocessors, tablets, palmtop devices. | • Offers pupils wordprocessing facilities anywhere at school, especially if a laptop or desktop computer is not available  
• This can have all the benefits of wordprocessors, as described earlier. Many such tools have additional facilities such as diaries to help planning, personal organisation and aid memory. |
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<td>Use programs with user options, eg. font and colour formatting, timers, speech support, content difficulty, etc.</td>
<td>• Dedicated programs with pupil options enable teachers to meet individual needs and preferences both in format and content thus providing the optimum environment for learning.</td>
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| Use mindmapping and planning tools, eg. ‘Inspiration’, ‘Kidspiration’, which create mind maps, writing frames and planners to use onscreen. | • Typing ideas directly into writing frames and storyplan templates created in wordprocessors reduces time and effort, enabling pupils to expand their ideas and notes and use cut, copy and paste to organise their ideas  
• Pupils can plan visually using text, symbols and graphic images to draft and organise their work  
• Dedicated mindmapping programs allow all of the above and the facility to add additional notes before using the program to convert the map into linear text to import into a wordprocessor, web page or multimedia presentation. This reduces time and effort in copying/typing out plans and notes and links planning seamlessly to the writing task. |
| Use programs that track pupil progress, eg. time taken, attempts made, correct answers, details of errors made. | • Dedicated programs that track pupil progress can inform and encourage pupils as to how well they are doing, increase self-esteem and help teachers with target-setting and measuring achievement. |
| Use interactive whiteboards. | • Enables better visual clarity for text and diagrams, improves tracking with tools such as reveal magnifier or spotlight. Activities can be multisensory and hands-on. Pupils and teachers can model and demonstrate tasks. |
| Use handheld spellcheckers, eg. ‘Franklin Literacy Wordbank’. Many handheld products have additional features to support individual spelling such as homonym checker, personal lists and a thesaurus. | • Enables pupils to spell check using phonic alternatives rather than rely on usual first two-letter match on common computer spellcheckers  
• Increases spelling accuracy and confidence and is usually faster than using a standard dictionary. |
| Use typing and keyboard awareness programs. | • As ICT is such a key tool in the support of dyslexic pupils it is essential that they have a good knowledge of the keyboard and learn to either touch type if possible or type efficiently (using two hands) so that entering text is as least as fast or faster than their normal writing speed. This needs to be done as early as possible and practised regularly at school and at home  
• Where appropriate typing can then be pupil’s normal mode of recording and used for extended writing and recording, homework and exams (subject to exam board conditions). |
| Offer alternatives to written recording. | • Dyslexic learners enjoy using alternative forms of recording and often use pictorial imagery in their learning. ICT can support this with the use of digital images and clip art, digital cameras, multimedia presentations and video cameras  
• Speech recognition may be appropriate in some cases, especially at key stages 3/4 where the demand for writing in all curriculum areas increases. |
| Use low-tech solutions. | • Simple low-tech solutions can help support many pupils in access, learning and recording. Cassette or digital recorders are helpful for recording ideas and information, listening to instructions or texts  
• A small memo microphone may also be useful for reminders and instructions  
• Any qwerty keyboard can help with practising typing skills. |