

Chapter 7

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7 ON-SCREEN WORD BANKS

7.1 Word bank programs

Word banks are grids or lists of whole or part words, or phrases, that are presented on screen. The learner selects a word with the mouse, keyboard or switch, and the word is typed into the word processor. Most word bank programs have speech output so that the writer can listen to the word to confirm it is the correct one, before selecting it.

Word banks can also be presented on an overlay (concept) keyboard. On-screen word banks are quicker to create and edit, because there is no need to print out an overlay, and different banks can be quickly called up on screen (compared with having to swap paper overlays). Overlay keyboards are useful where the learner has difficulty operating the mouse or pointing device. This chapter deals with on-screen word banks: refer to *Special Access Technology* (Nisbet & Poon, 1998) for more information about overlay keyboards.

Some word processors (*Pages*, *TextEase*, *PenDown* and *Talking Word for Windows*, *Clicker Writer* and *Inclusive Writer/Writing with Symbols 2000*) have built-in word bank facilities. *Pages*, *TextEase*, *PenDown* and *Talking Word for Windows* provide a simple list of words, and the writer clicks on a word to insert it into the text. The font and size of the list can be changed in the Acorn versions, though it is fixed in the Windows versions, but otherwise the bank is fairly limited.

Program	Machine	Description	Cost	Supplier
<i>Clicker Writer</i>	Win 95/98	Talking word processor supplied with the Clicker 3 on-screen grid/word bank program. Links with Penfriend word predictor. Supplied with activities and 2,200 pictures/symbols. Switch access version available.	£80	Crick, Inclusive, Semerc, AVP, REM, etc.
<i>Inclusive Writer</i>	Win 95/98	Word processor with speech output, word / picture / symbol grids; pictorial spellchecker; 3,500 pictures / symbols; ready-made activities. Switch access version due in 1999.	£80	Inclusive, REM, AVP, etc.
<i>Pages</i>	Acorn / Win	Simple talking word processor / DTP program, with basic word banks.	£49	SEMERC, REM, SCET, etc.
<i>Talking PenDown</i>	Acorn / Win	Talking word processor / DTP with spellchecker and word banks, suitable for 8 to 12 year olds.	£54	Logotron
<i>Talking TextEase</i>	Acorn / Win	Very popular, easy to use talking word processor / DTP program suitable for all ages. Basic word bank facility.	£65	SEMERC, Inclusive, REM, SCET, etc.

Point, *Inclusive Writer*, *Writing with Symbols 2000* and the various versions of *Clicker* can do a lot more than the simple *Pages*-style word lists: the grids can contain cells of different sizes and colours; graphics may be displayed as well as text; and when the writer clicks on them they can generate synthesised or digitised speech, or insert text or graphics into the word processor. *Clicker* and *Point* can also be used to type into any application on the computer. Both *Clicker* and *Point* are available in versions which are accessible to switch users (*Switch Clicker* and *Windows Switch*, respectively) while switch access will soon be provided in *Inclusive Writer*. (See CALL's *Special Access Technology* (Nisbet & Poon, 1998) for more information on switch access.)

Programs like *Clicker* and *Inclusive Writer* are much more than word processors with word banks, and can be used to create educational on-screen activities, with sound and graphics. The programs are all supplied with examples of word banks and activities, and new ones can be made fairly easily and quickly. Creating your own on-screen activities does take more time than using a ready-made commercially available program, but gives you materials which are very appropriate to the particular learners and curriculum:

“The setting of our own tasks through generic, content-free software offers the widest and most appropriate opportunities. Commercial software packages, too full of options, variables, and time consuming asides create areas of uncertainty for pupils and teachers alike and rarely fit within the time available.”

(Stewart, 1998)

Program	Machine	Description	Cost	Supplier
<i>Clicker Plus, 2, 3</i>	Acorn / Mac / Win	Very popular and flexible on-screen keyboard / word banks / access programs with excellent facilities.	£50 – £80	Crick, REM, Don Johnson, Inclusive, etc.
<i>Point for Windows</i>	Win	Good, easy to use mouse-operated access, word bank and on-screen keyboard program for Windows PC.	£60	AU
<i>Discover:Screen</i>	Mac / Win	Primarily a special access program for mouse users who have difficulty with the keyboard, but can also be used to create word banks.	£199	Don Johnson
<i>Talking First Word</i>	Win	Adds speech and Topic Banks of words and images to MS Word 97.	£69	Research Machines
<i>Talking Word for Windows</i>	Win 3.1	Adds speech and four word banks to Microsoft Word 2 or 6.	£50 (for 5 users)	Logotron

7.2 Word banks and early learners

Word banks on-screen or on an overlay ('concept') keyboard provide a useful technique for introducing pupils to word processing and writing using a computer. Words, part-words and whole phrases can be stored in a cell in a grid and written into the text by clicking on the cell, or by pressing the key on the overlay keyboard. Since children normally learn to recognise words before they are able to construct and spell them, word banks help pupils to get experience and success manipulating words and generating meaningful text from an early stage of their literacy development.

Word banks are best used in conjunction with an on-screen exercise appropriate to the learner. In Figure 7.1 the writer completes the task by placing the cursor in the correct place on the screen, then clicking on the relevant word in the *Pages* word list, and/or by using the keyboard and spelling. The pupil can also click on the word with the right hand mouse button, to hear it spoken and check it is the correct one, before selecting it.

Figure 7.2 shows a *Clicker* grid with words and phrases which can be used to create complete sentences: the writer does not need to spell any words themselves. Grids can be 'linked' together to give the writer a larger number of words or phrases than can fit on one grid. In this example, the pupil can click on "Go to part 1" and "Go to part 2" and new grids of words are displayed on screen.

Figure 7.1: Activity using a word bank from the *Pages/TextEase* Resource Pack (Marroni, 1998)

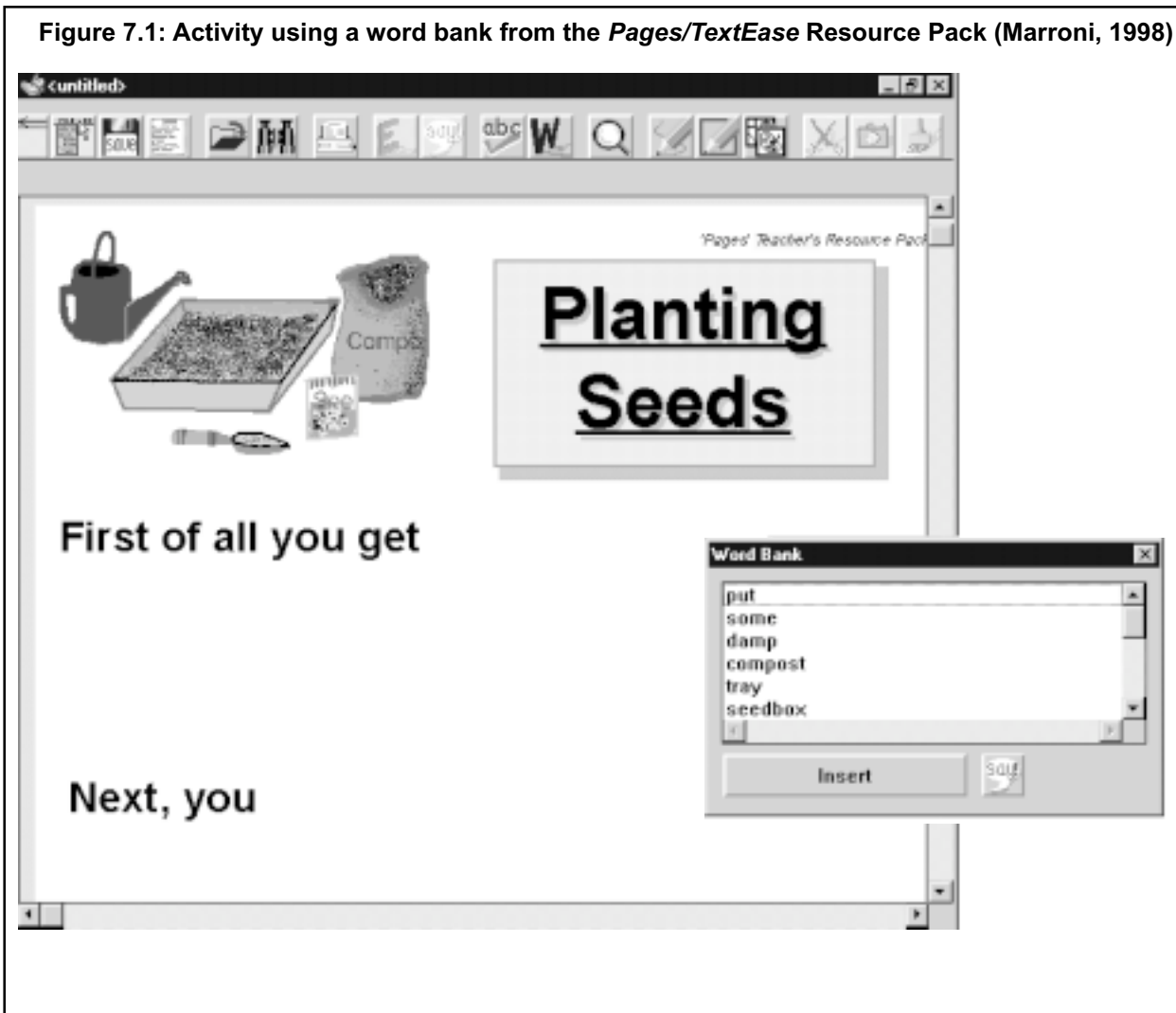
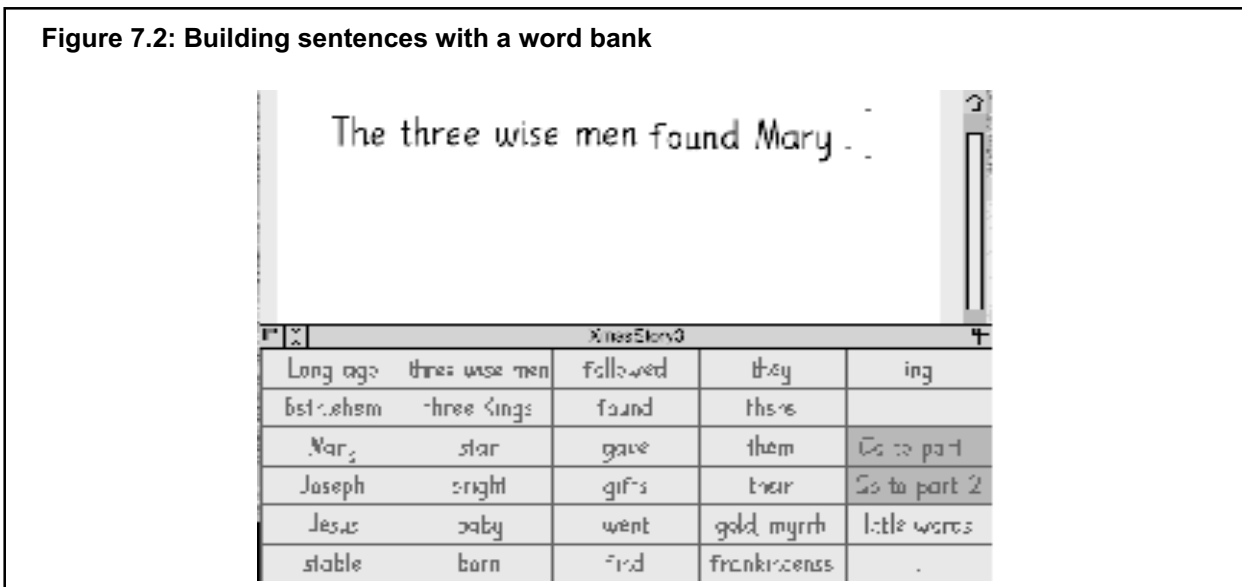


Figure 7.2: Building sentences with a word bank



Word banks are excellent tools for sentence construction and activities where the vocabulary is predictable and limited. When the classroom activity involves spelling or use of a wider vocabulary than can be effectively displayed on word banks, then other tools are needed. The Case Study in Figure 7.3 illustrates how one early writer uses different tools for different writing tasks.

Figure 7.3: Case study – different tools for different tasks

'Nicola' is in P1 of a mainstream primary school. She has cerebral palsy, which affects her motor skills and speech. She can hold a pencil and, by using a sloped writing table, she can complete some work on paper, but it is slow and difficult for her. She is supported by a classroom auxiliary. Nicola is making good progress in school both with the curriculum and in terms of her relationships with her classmates with whom she participates in games and activities.

The class has a BBC Master computer with printer, A4 Concept Keyboard and a range of software. The teacher had created a full set of Concept Keyboard overlays to match the *Reading 2000* scheme used in the class, and the overlays are used with the *Folio* word processor. During the first two terms at school Nicola had already successfully used the BBC with the standard keyboard and keyguard, and also with the Concept Keyboard.

Using the BBC, Nicola typed a few exercises from her Reading Scheme book. The task was to compose a sentence from jumbled words. Nicola typed the following sentences:

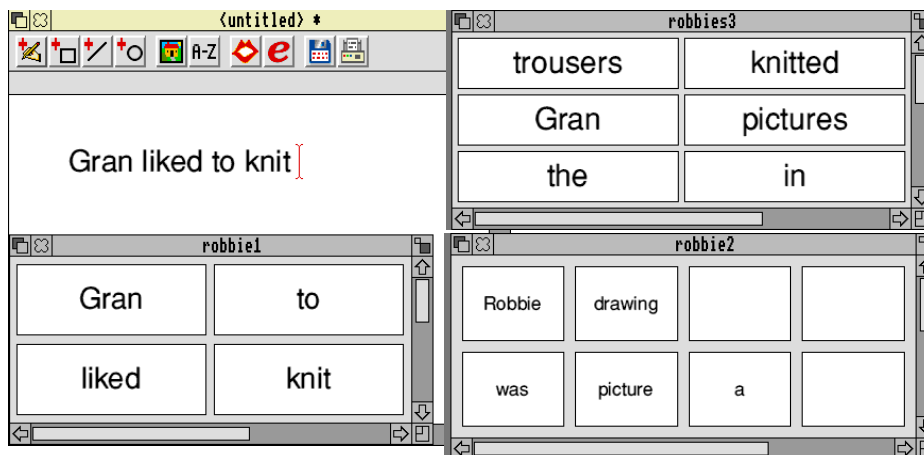
Sentence 1: *Gran liked to knit.* [3:15 mins]

Sentence 2: *Robbie was drawing a picture.* [4:05 mins]

Sentence 3: *Gran knitted pictures in the trousers.* [4:10 mins]

The total time she took to write each sentence (which included 'thinking time') is given in brackets. Her accuracy was very good – she only made one typing error (writing 'Gar' instead of 'Gra') but noticed immediately and corrected it.

She then tackled the same exercise using three different *Clicker* word banks, accessed with a *Roller* trackball.



She took around 1 minute to compose each sentence – compared with over 4 minutes using the keyboard and spelling letter by letter.

Clearly, Nicola could complete this exercise much faster with word banks than by typing on the keyboard. However, this does not mean she should use word banks for *all* writing tasks. The learning task in this exercise involved word recognition and sentence construction – not spelling. Other activities which do develop or test spelling should be tackled with the keyboard. (Note that it would be possible to use an on-screen keyboard, but Nicola found the real keyboard faster and easier.)

Nicola therefore uses the writing tool best suited to the task: the standard keyboard with guard for spelling exercises, and word banks for activities involving word recognition and manipulation. As Nicola moves through the school and is required to produce longer pieces of work more independently, she will need different tools.

One approach would be to use word banks organised alphabetically - to type 'always', for example, she would click on 'a' and then select the word she needs. (See Figure 7.5 below.) A word predictor will also be worth investigating in the near future because it gives access to a larger vocabulary than the word banks, and because Nicola's typing speed is relatively slow. It is important to make sure the word predictor dictionary is small, does not contain a lot of inappropriate words, and also that it contains the vocabulary she has learned using word banks.

7.3 'Breakthrough to Literacy' programme

This book describes the use of computers to support young writers. Sometimes there are not enough computers or staff to give pupils as much practice as they need. 'Low-tech' methods using traditional teaching materials and techniques can provide similar learning opportunities at lower cost and greater availability.

The *Breakthrough to Literacy* method (Mackay, Thomson and Schaub, 1970) promotes the use of word banks and sentence makers. The words are written on card and kept in a pupil's word-holding folder. The pupil puts together a sentence in the sentence maker through using a slot in a folder, or a strip of wood with a slot. The learner then uses the sentence as a model for writing the sentence by hand.

Computer-based word banks offer the opportunity to delete words, print out a neat copy, and give speech feedback, but the principle is the same as using word cards. A quick way of creating word cards, is to print out the pupil's on-screen word bank onto card and then cut out the separate words.

7.4 Word banks for writers with spelling and writing difficulties

Writers with spelling difficulties can use word banks to write longer or more difficult words. The word bank can also help to generate ideas, encourage the use of new vocabulary and can remove anxieties about spelling. Pupils with difficulties in spelling, or physical difficulties resulting in slow laborious typing, can work faster by selecting whole or part words.

Figure 7.4: Case Study – using topical word banks

Peter is in Primary 5 and is a reluctant writer. Although he has no particular difficulty with 'small' words, he does have problems spelling longer words, and also needs help to 'get started' with his writing.

The classroom auxiliary has added some key words for writing about the 'jungle' topic his class have been working on into the Pages word list. Peter can explore the words in the list by clicking on them with the right hand mouse button to hear them spoken out, and then when he has found the word he wants, he clicks with the left button to insert it into the text.

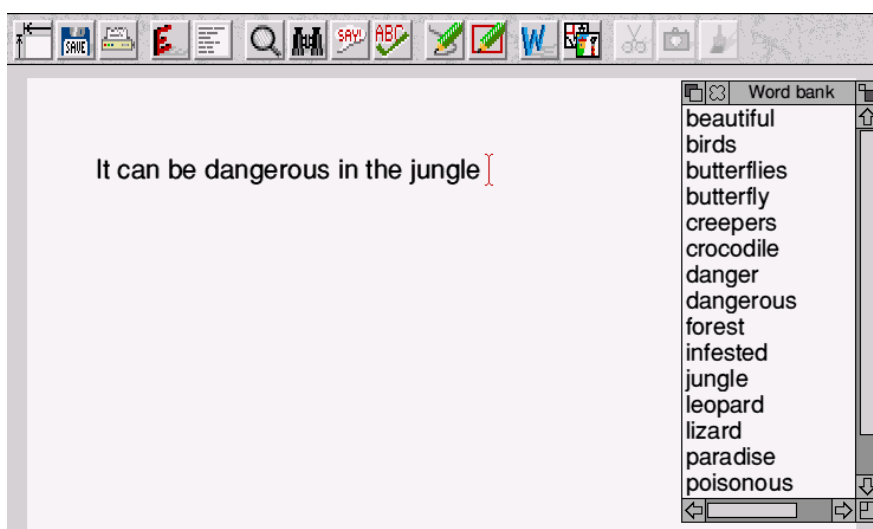
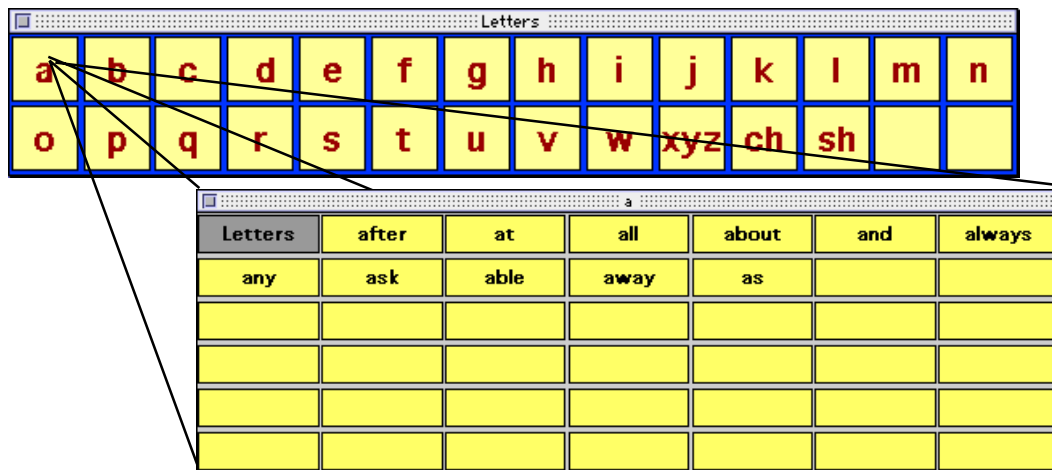


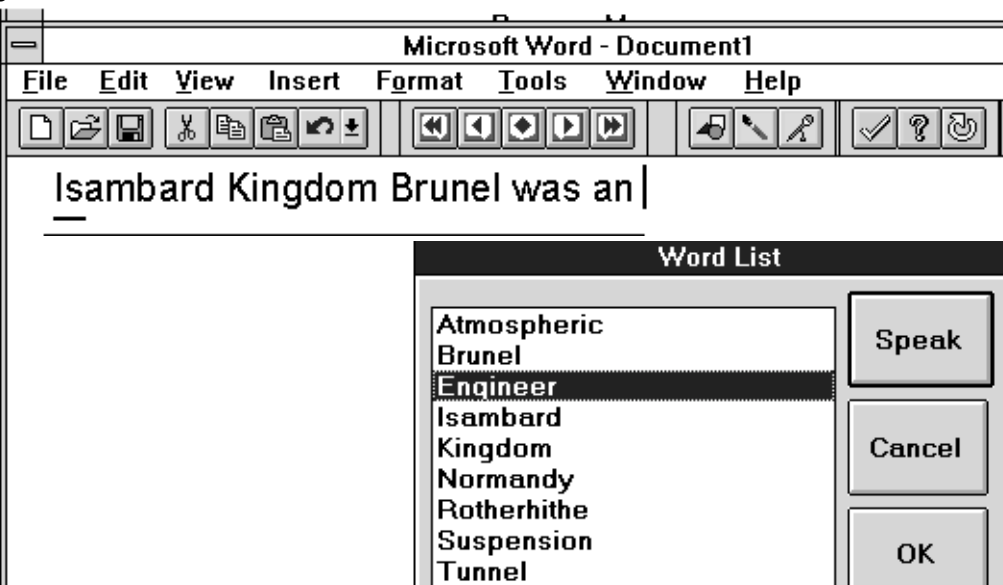
Figure 7.5 shows two more examples of word banks for writers with spelling difficulties. *Talking Word for Windows* has four word lists which can be filled with topic-specific words. The *Clicker Plus* banks work a little like a traditional word book: the writer clicks on the letter and a grid with words beginning with that letter is displayed. New words can be easily added to a blank cell as required. *Wordbar* is a new program from Crick Software (publishers of *Clicker*), which is designed for late primary and secondary school writers who need this sort of support. It is available for *Windows 95/98* computers, and also the *DreamWriter IT*.

Figure 7.5: Word banks for writers with poor spelling

ClickerPlus



Talking Word for Windows



WordBar



7.5 Word books

'Low tech' traditional writing support techniques can be used alongside computer-based word banks. Alphabetically organised word books, with a couple of pages of words starting with each particular letter are of benefit to all pupils as they start to write. Word books are available from educational suppliers with common words ready filled in, but a small jotter is sufficient. Pupils can copy particular words they know into the word book as well as asking the teacher for help with specific words. The writer finds a word in the book by using the first letter as a reference, and then copies it into their writing. This method has a by product of ensuring a pupil's good understanding of the order of the letters in the alphabet. The *ACE Spelling Dictionary* (Moseley & Nicol, 1986) is a very popular dictionary which helps a writer find the word by sounding it out.

7.6 Writing with symbols

Some pupils have significant difficulty with all aspects of writing and may never become independent spellers or writers. Learners who have few word recognition skills may still be able to 'write' using symbols. In Figure 7.6 the writer clicks on a symbol displayed in the on-screen keyboard and the symbol and text 'translation' are inserted into the text.

There are now several programs for manipulating and writing with symbols. *Clicker 3*, *Inclusive Writer* and *Writing with Symbols 2000* provide a word processor with excellent word bank facilities and can also handle graphics and symbols well. Software that is primarily intended for voice output communication, such as *Speaking Dynamically* (Mac, £207, Don Johnston), *Talking Screen* (Windows, £1,100, Cambridge Adaptive Communication) and *Winspeak* (Windows, £150, Foundation for Communication for the Disabled) can also be used for writing small amounts of text, although the editing and 'writing' facilities are much more limited than programs like *Writing with Symbols*. *Symbol Software* (Millar & Larcher, 1998) provides a comprehensive guide to these and other programs for writing and communicating with symbols. *Literacy through Symbols* (Detheridge & Detheridge, 1997) gives lots of examples and ideas for using symbols and on-screen keyboards.

Figure 7.6: *Clicker* on-screen keyboard in use with *Writing with Symbols*



7.7 Word bank summary

Word bank programs are useful for pupils with writing difficulties because they:

- ✓ enable a learner to write with whole or part words, pictures or symbols;
- ✓ allow pupils to write using word recognition skills rather than having to spell;
- ✓ let writers concentrate on sentence content and structure without worrying about spelling.

Word bank programs are worth investigating if:

- ✓ the writer is young or at a very early stage of literacy;
- ✓ the writer has difficulty attacking words;
- ✓ the writer needs key word prompts to start writing;
- ✓ the writer needs a bank of difficult words.

Things to look for in a word bank program:

- ✓ quick creation and editing of word banks;
- ✓ ease of use;
- ✓ flexible font and colour control;
- ✓ activities and examples supplied with the program;
- ✓ symbol handling facilities, for those who need them;
- ✓ symbol libraries supplied with the program;
- ✓ switch access, for writers who cannot manage the mouse/pointing device.