Why Use BoardMaker? Quick Guide

Once upon a time, photocopying, cutting out, colouring in, and sticking in paper-based symbols was the only way for teachers, therapists, families and others to produce Mayer Johnson Picture Communication Symbols (PCS). *BoardMaker* software radically transformed life, allowing us to produce good quality coloured symbols quickly and simply, on computer.

For many years now, *Boardmaker* has been a much-loved trusty 'workhorse' piece of software. A Windows PC version of it came out in due course, to partner the Apple Mac version. But nowadays there are also several other different ways to generate PCS symbol materials on computer. For example, you can now buy PCS symbols as a graphics library on CD, and use them in any number of different types of Windows and Mac software (in the same way that you use clip art, digital photos and other graphics). Communication and writing software commonly used in conjunction with the symbols would include *Clicker 4* and *Writing with Symbols 2000*.

People now often ask which software they should buy - which would be best for their own situation? To a large extent it is 'horses for courses', there is no definitive answer. As *BoardMaker* is the most expensive option, people may wonder whether they could use the cheaper software instead. Some people will find that the newer software options meet their needs. But *BoardMaker* has by no means 'had its day'. Here are some reasons why it might still be valuable software for you. You will notice that many of these reasons are not technical reasons but 'human' reasons....

Good Practice in Schools

Any pupils who have difficulties with reading, writing, speaking, listening or interacting are likely to benefit from picture and symbol support for their work with all areas of the curriculum. One or two single PCS symbols around on the walls, eg. for timetables, is not enough. The whole classroom/school environment needs to be 'symbolised'. Symbols can be used to make story or song boards, topic boards, menus, instruction sheets and so on. To create symbol materials in these quantities takes a great deal of time and imagination. Staff need the best tool for the job. The best tool is the simplest one that does the required job quickly and efficiently, and the one they feel most comfortable with.

If it ain't Broke, Don't Fix it!

If you already have *BoardMaker* and it is performing well in meeting your needs, it doesn't make sense to just throw it away and buy something new.

Familiarity, Training and Support Issues

As we all know, any software is only as good as the people using it. If, over years, staff development budgets have been invested in *BoardMaker* training, and individual staff members have spent years mastering it and learning how to make the best use of (and work-arounds for)

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every little feature, that is not something to throw away lightly. How long would it take staff to reach the same level of skill in another program? The expense of purchase of new software is just the tiny tip of a huge iceberg - you need to think about all the other costs in terms of loss of previously created files and resources etc., not to mention loss of staff confidence, familiarity and skill, and the effort of having to start again from scratch. Staff time and training are far more costly than software purchase.

In Scotland at least, *BoardMaker* has gradually become the software of choice for speech and language therapy services. It has taken around ten years for the current level of skill to be built up. If schools go over to some other software, it might lead to time-wasting through incompatibility problems and disrupt instead of facilitating joint working with communication impaired pupils. Whereas if the school and S&LT service use the same software, staff can work together (and support each other in computer use by informal tutoring and skill sharing); materials can be developed collaboratively and shared, exchanged, personalised and updated etc by either education or S&LT.

Complexity Issues

Although *BoardMaker* only does one thing, it does it simply, efficiently and reliably - it allows you to print out black and white and/or coloured PCS symbols out on paper, in any kind of layout you wish. School staff therefore have to master *only one* piece of software in order to be able to create a huge variety of symbol resources. This is worth a lot.

Yes, you **can** print out PCS symbols on paper using other software, but these may demand higher levels of overall computer literacy and experience. The minute you start running two or more applications at once, the operational complexity level goes up sharply. To be able to import a PCS symbol out of a graphics library and into another program such as *Clicker*, *Symbols for Windows*, *TextEase* or *Microsoft Word* (or whatever), you have to 'know what you're doing'; it requires a familiarity with other software applications and file handling techniques which all school staff members do not necessarily possess. To get a grid or overlay of an exact specific size out of - for example - *Writing with Symbols* takes quite a lot of measuring and 'trial and error' (although this has been improved lately, in Version 2 of WWS 2000, which now copies BoardMaker and provides templates for some commonly used communication aids). Whereas, to be blunt, the beauty of *BoardMaker* is that it seems to be used quite effectively by folk who don't really know much about using computers!

Who will be using the Symbol software?

The stand-alone simplicity of *BoardMaker* is a valuable quality, when taken in conjunction with the fact that it is often classroom assistants/SEN auxiliaries who will - in all likelihood - be tasked with the production of symbol-based materials, though, sadly, these staff members are often excluded from software training courses. There is little point in a school having an expert in all the latest software alternatives and in graphics file-handling - perhaps the school ICT coordinator for example - if, in practice, this person actually has no understanding of the symbol needs of SEN pupils in a unit, no time to create symbol resources, or no time to train other staff in these techniques.

Symbol User Issues

If you are working primarily with pupils or service users with severe and complex learning difficulties, your main requirement may be for individual symbol cards, in which case use of single symbols from a graphics CD may be quite adequate.

But if you are needing symbols for use in a more extensive and structured teaching and learning or communication scheme, such as TEACCH, PECS, colour coding by syntactic category for specific language impairment, or AAC, you may need sets of symbols in specific sizes, layouts, and on particular colour-coded backgrounds. 100% consistency can be extremely important, so a simple program allowing you to build and save template grids will be helpful. (All of the activities below *can* be done in other software but perhaps less simply.)

AAC
For people with severely impaired speech, language and communication, symbols may be used as a primary means of communication. One or two PCS symbols around on the walls, on BigMack tops or on story or song board boards is not enough for them; they will need access to a full personal communication vocabulary of hundreds of symbol words and phrases, organised into topics on a large communication chart or book. They may have special access issues. Trimming symbol grids and pages to the *exact* size required (eg. for pocket sized communication books) is easier in *BoardMaker* than in other software. So is creating a grid with a specific amount of space in between symbol cells, which may be important for visually impaired users (some symbol software creates grids without any spaces between cells). Similarly, when making symbol overlays that need to be the exact size to fit voice output communication aids, the 'Pre-made Grids' facility in *BoardMaker* - and the option of downloading pre-made grids in the correct size for new devices coming in the market (such as the Eclipse, or the TechTalk) is invaluable!

TEACCH & PECS
In the TEACCH scheme for pupils with autistic spectrum disorders, the whole day is structured by 'detachable' symbols on coloured backgrounds, representing each activity and task and being moved around to different coloured displays, depending on whether they are 'to be done' or 'finished'. As with PECS, where a large vocabulary bank of symbols will be required, this requires creation of symbol materials 'on an 'industrial' scale - *BoardMaker* as a specialised tool, with its own built in drawing page, is recommended, rather than an approach that imports symbols 'one at a time'.

Specific Language Impairment
Colour coding by syntactic category can be an important aspect of a sentence building programme for pupils with severe language difficulties. Different language programmes have different codes. The newly available (PC version only) 'non-transparent' *BoardMaker* Libraries make it possible to create sets of symbols with black outlines and white interiors on your own choice of colour coded backgrounds (as recommended by Goossens', Crane and Elder, for AAC users, too).

Symbol to Concept Matching
Because it is a database not just a a library, *BoardMaker* allows you to visually 'browse' through the PCS symbol libraries, both within and across categories. *BoardMaker* symbols are also organised (in the book and in the computer program) into semantic categories, to facilitate browsing, whereas in some other formats, the symbols are usually organised alphabetically. This allows you to compare the various possible symbols and choose the most suitable, or to search for one that will be appropriate, based on its visual aspect (and regardless of its 'title' in text). This is very important

for a visual system; you simply cannot guarantee getting the right picture, looking it up by name alone. This desirable feature is further enhanced in the new *BoardMaker* V.5.0 (PC only) - up to 49 pictures can be viewed at once in a 'thumbnails' window, either by name (all the different pictures for *play*) or by category (all the items in the *descriptive* category), to let you pick the best one.

With the CD library and programs other than *BoardMaker*, visually browsing the full system is not a possibility. The Windows 98 operating system and some programs allow symbol preview - but only one by one, or *after* you've called a symbol up by name. This leaves symbol users vulnerable to the most basic of mistakes on the part of the person creating their materials - use of the wrong symbol. 'Blinded' by their ability to read the symbol label, adults in a hurry may just take the first symbol with the right text label offered in a list of numbered alternates, without checking that the picture matches the concept they are intending to be conveyed to the child. For example, they could make a symbol story chart showing a *person* 'eating' whereas the story is about a *tiger* eating, put in a symbol that shows a blond boy (whereas the character is a black girl), and so on. It is also all too easy, with the 'symbol processors' such a *WWS 2000* and *Clicker 4*, to let slip past symbol 'crimes' - like the graphic of a *can* (tin for preserving food) used as the symbol for the auxiliary *can* of the verb *'to be able'*, or a picture of a *fly* (insect) being used as the verb for what an aeroplane does, and so on. The other thing that can happen is that people give up and think that a particular symbol doesn't exist, when it isn't listed where they expect to see it (whereas it may just be listed elsewhere). If they could have browsed visually by semantic category, they would have found it.

The overall outcome is that inexperienced people can all too often make *poor quality* symbol materials - which are often not spotted until they are already laminated and on the wall!

Without the *BoardMaker* database, even experienced people who **do** know exactly what symbol they are looking for, can sometimes only find it after a huge amount of frustrating clicking back and forth through many different files organised alphabetically (for example - *wellington boots* may sometimes be under *b* for boots, *g* for gum boots, *w* for wellies, or *r* for rainboots because different programs (or different versions of the same program) use different versions of the PCS symbol libraries.

Symbol Book
When you buy a licence to use PCS symbols, with any program, you do get a book listing all the symbols visually, by semantic/syntactic category, so you *should* be able to look up the symbols visually not just by name, which is very important. But there are three drawbacks to this system:
1)   In many schools, the books and manuals accompanying software are often not available to staff - for all sorts of (not very good) reasons.....
2)   Even when there IS a book, users seem to be unlikely to consult it - as, notoriously, with all manuals....
3)   The book is not user-friendly - the Index tells you only whether or not a specific symbol exists, not what category it is in, nor what page in the book it can be found on. There is thus no search mechanism except visually browsing right through the whole book (in *BoardMaker* you can browse within specific categories)

Symbol editing

Perhaps because of the browse facility, *BoardMaker* users also can become very familiar not only with the symbols but also their component parts, and can use simple editing tricks like cutting out elements of different symbols, duplicating them, placing more than one symbol (or symbol part) in the same cell, and resizing different elements manually. Most of the other software does not allow this. With them, while drawing new symbols and/or editing bits of existing symbols together to create new symbols for new meanings will be possible, again, it will require the user be familiar with the use of two or more programs at one time (eg. editing symbols in a draw/paint program, before transferring to the end application)

Limitations of BoardMaker

Making non-grid symbol materials
Sometimes (especially when working with older children and adults, perhaps) PCS symbols are required in materials, which are not laid out in a grid format. For example, to make written information accessible to service users (eg. Minutes of meetings, information about college courses, about health, the law, or about services, or for making Passports). You *could* do this in BoardMaker but only by faffing about with typing or pasting text into 'invisible' grid cells (and there is a limit to how many characters of text can be put into a single cell). In this case, it may be more practical to use a full scale symbol processor (such as *Writing with Symbols 2000*), or a graphics friendly word-processor or simple multimedia/desk top publishing program (such as *TextEase*) so that symbols can be laid alongside text, or in a document with a specific layout/format, as opposed to in isolation or in a grid format.

Extending Symbol Vocabularies
Although the Mayer Johnson PCS vocabulary in the *BoardMaker* library is very extensive (3,000+ symbols, with further 'Addenda' published from time to time) it still does not contain every word or concept that might be needed. Its current vocabulary is also rather 'loaded' towards younger children and school situations, rather than towards older children or adults. It is not specifically attuned to the UK vocabulary needs of the Scottish 5-14 or English National Curriculum. You may need to create or 'find' new symbols and pictures for additional concepts. Adding these one by one to the *BoardMaker* library, to make them 'searchable' is possible, but it can only be done one by one, and can be a bit of a pain in the neck, compared with the ease of adding new graphics to a simple list of individual graphics files, in a folder to be accessed with an 'insert graphic' command from more modern multimedia software.

Lack of Flexibility
BoardMaker is a bit 'protectionist' about the PCS symbols - although they are installed on your computer for use in BoardMaker, they are 'hidden' in a special format inside their special libraries, and are not available for use in any other software. So if you are a computer whizzo and intend to use symbols in different ways, in lots of different software, you will prefer to use the new PCS symbol library rather than *BoardMaker*, as it gives more versatility for 'mixing and 'matching'.

Editing Graphics and using Digital Photos
The original version of *BoardMaker* is a bit old and creaky – it does not handle digital photos well. You can put photos into grids by cutting and pasting from a drawing program (though you may have

to reduce the resolution by about 50%, because of memory problems) but adding them permanently to the *BoardMaker* library to make them 'searchable' does not work at all well. The new Version 5.0 for PC does improve on this, though you still need to use a graphics-handling program as well, to crop and reduce the resolution of photos.

Even quite simple symbol editing (eg. changing colour, flipping/ rotating etc.) is impossible in the original *BoardMaker* – the only way of doing that would be symbols need to be taken one by one to a draw/paint program, which reduces it to the same level of functionality as the other symbol programs. (This is easy in Version 5 for Windows PC only.)

Direct Computer Use
BoardMaker has very clear limits; it is a tool for staff, and is not directly accessible to symbol users. If symbol users have the physical and cognitive ability to access symbols on computer directly and independently, then they will need a different kind of program altogether, for writing. Obvious examples would include *Clicker 4*, or *Writing with Symbols 2000*.

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BoardMaker for Windows PC Upgrade

If you need more 'power' (eg to incorporate digital photos into symbol grids) - **and** if you have at least 100 megabytes of free space on your hard disk - rather than buying new software, it might make sense to upgrade to the new version (Version 5.0) of *BoardMaker for Windows*, released in April 2001. The new version provides many of the features we have been looking for. For example, faster symbol searching, vector-drawn metafile symbol format; additional paint tools to allow for better symbol editing/personalisation and colour coding; thumbnail preview feature, displaying whole categories (up to 49 symbols) at once. You can import existing *BoardMaker* files and libraries into the new version.

Check the Mayer Johnson website (www.mayer-johnson.com) for news of developments. Check with your UK supplier, for prices and arrangements for upgrade. No news of a Mac upgrade yet (though you can upgrade an old Mac version to the new Windows Version 5.

It's no 'either/or' - it could be 'we need both!'
In conclusion, it could be argued that schools will very often benefit from having *both BoardMaker* (for making materials simply) **and** another program that the pupils can use directly for writing, such as *Clicker 4* or *Writing with Symbols 2000*, for example, with the PCS symbol library.

For communication aids, symbol users might use 'talking' PCS symbols in dynamic screen communication aid programs such *as Clicker 4, Winspeak, Speaking Dynamically Pro, Talking Screen, Mind Express or Symbols for Windows*.

You can buy *Speaking Dynamically Pro* 'bundled' with Version 5 of *BoardMaker* (Windows PC only) at a special price. This is not cheap, but it is an excellent package, as it allows for a 'staged' approach to voice output communication aid use.You can start off with simple low tech symbol boards made with *BoardMaker* and then move on gradually to turn the same or similar boards into 'talking symbol boards' (and ultimately sets of linked boards) that the child can use directly him/herself on computer (or portable touch screen or switch operated computer-based communication aid).