

## Accessible PebblePad

A number of institutions have reported success using PebblePad with dyslexic learners. Sometimes the success is attributed to the interface; sometimes to the scaffolding which helps learners structure their entries, and sometimes to the ability to organise the presentation of work in non-linear ways.

The unique interface overcomes some of the challenges of complex webpages which are traditionally a problem for Dyslexic users when using the internet. The interface can be tailored to suit the individual needs for any user including customisable text size, font style, background colours in both the main interface and the recording wizards.

The different record types within PebblePad are structured to guide the user through recording their entries in a clear but comprehensive way. The feedback from institutions had been that many Dyslexic users find the structured nature of the PebblePad fields is helpful for organising their thoughts.

Additional context specific help is also available throughout these records to clarify and support the user experience. It is possible for administrators to change the instructional text within PebblePad from simple key word changes to all labels and contextual help.

Some users find that pictures are useful both to break up text and as visual aids to comprehension. PebblePad uses icons to indicate different aspects of the program, creating visual clues for the user. All icons have alt text. PebblePad also repeats common processes throughout the system for: adding list items; opening blinds; ordering information and moving between pages.

It was always really important to us to develop an easy to use system where all users could carry out complex activities (i.e. building webpages) without developing complex technical skills. It was equally important that the system should be as customisable as possible to help personalise the use of PebblePad: in settings users can fully customise all visual and coloured aspects of the program.



- There are seven fonts a user can choose including, Verdana, Arial, Comic Sans, Courier, Helvetica, Times and Trebuchet.
- There are three different font sizes roughly translating to 10pt, 12pt and 14pt. Although these can appear larger depending on the selected screen size. For instance on a 20 inch monitor running a resolution of 1024x768 with large text and the large screen size selected, will display text equivalent to around 20pt.

- There are fifteen pre-designed colour sets for the pads and an additional 4 which are designed specifically for users requiring high contrast accessible colour schemes. There is one pad option which is fully customisable so even the most specific colour requirements can be catered for.

There are a selection of animated interface themes as well as a basic theme which provides large buttons on a plain background.

## Visual Impaired Users and PebblePad

Our overriding design brief was to create a very usable learning tool. Usability is often sacrificed to accommodate accessibility often creating systems which are technically accessible but challenging for all users.

PebblePad is fully tabable and has extensive alt text. All PebblePad webpages are compatible with traditional assistive technologies.

We developed PebblePad to work with the JAWS screen reader as this was one of the only screen readers which claimed to work with Flash. It is true that for simple flash applications/websites JAWS can do a very good job. However for more complex systems with a continually changing screen layout and intensive form completion, developing (and maintaining updates) for JAWS was a near impossible task. It became clear to us after consultation with the RNCB (Royal National College for the Blind) that this approach was not going to work for PebblePad.

The RNCB suggested developing our own text-to-speech software which would also act as a bespoke screen reader. After researching this technology we began writing our own system for delivering text-to-speech audio on demand in place of a traditional screen reader. Building our own system allows us to incorporate an additional layer of voice prompts to help VI users navigate and use the system.

As well as working with the RNCB we also work closely with the Chartered Society of Physiotherapists to improve and develop further our text-to-speech accessibility. It has been very well received by their sight impaired users who use PebblePad's inbuilt system in conjunction with JAWS or other tools for non Flash applications. We are confident that we have an effective and innovative solution to the screen reader flash problem.



The current version of PebblePad is self voicing using the latest in Text-To-Speech technology.