## **Background**

Computer based treatment is likely to play an increasing role in the rehabilitation of aphasia (Katz 2010). This is reflected in the number of enquiries about what software is suitable and where it can be found, that are being received by the authors via their organisations. These enquiries come not just from clinicians, but also from people with aphasia and from people who care for or about them. Answering these enquiries is by no means straightforward; there is an ever increasing number of programs available (we have found over 40) and each of these programs may or may not be suitable for a particular individual's needs. Also the response appropriate for a clinician may not be helpful for a lay person or someone with aphasia. Whilst the authors believe that all treatment should be supervised and managed by a qualified clinician (and the resource we have developed clearly states this), there are some people who for whatever reason either have no access to clinical help or prefer to undertake some treatment on their own behalf. We know from direct experience that some of these people are spending money on software that does not help them and are unaware of software that could be more effective. We have also had feedback from clinicians that they are unable to continually scan for new software and do not have the time to evaluate all the products that are available, and so are concerned that they may be missing out on useful tools.

## The Aphasia Software Finder

Inspired and funded by the Tavistock Trust for Aphasia, the authors have developed a web site, the Aphasia Software Finder www.aphasiasoftwarefinder.org, which seeks to address these needs and bring the information together onto one website. The resource basically lists and analyses all the software we have been able to find which runs on a personal computer and is intended to treat aphasia or apraxia of speech. Each piece of software is analysed in two formats: one aimed at aphasia clinicians and one at people with aphasia. We have developed the site in consultation with a group of people with aphasia, however we recognise that it may only be "aphasia friendly" for some people with aphasia and we see this aspect as very much a work in progress (Rose et al. 2011). It should also be stressed that the site analyses but does not evaluate the software packages. There is no attempt to construct a league table or imply that any one package is better than any other in all circumstances. The analyses are intended to give the user information to help form a judgement about whether a particular program may be helpful in their specific situation. As well as the analyses, the site gives links to the supplier of each piece of software. It does not include prices, partly because they are subject to frequent change, but also because some have different arrangements for individual or clinic wide use.

There are three ways in which users can find a piece of software. There is a straightforward list of all the software included on the site and this is the easiest way to check on a piece of software the user is already aware of. There is also a comparison table which gives ticks or crosses against a list of key features for each piece of software in a similar way to consumer product comparison tables in newspapers or magazines. This enables a quick comparison to be made but is visually rather complex. Both the list and the table link to the full analyses of each program. The third way is to use the software finder itself (Figure 1). This consists of a set of options that the user can select to identify the aspect of language to be worked on; for instance "reading" or "conversation rules". A list of programs that address the chosen issue is displayed. The user can link directly to any of the program analyses from there or can select a further option to narrow the choice – for example single word or sentences under "reading". The analysis is "aphasia friendly" but there is a link to the "SLT" (Speech Language Therapist) version and at the top of the SLT version there is a link to "aphasia friendly". The SLT analysis has 15 categories including such things as theoretical basis, nature of prompts or

cues, and comments aimed at professionals (Figure 2). The aphasia friendly analysis is essentially a subset of this including categories such as number of exercises, ease of use, recording of results. We anticipate that lay people without aphasia will probably look at both.

## **Future developments**

In order for this resource to achieve its aims it will be necessary to keep it up to date. New programs are continually appearing and existing ones are being updated. Indeed we hope that having analyses of all programs accessible in this format may lead developers to consider updating their products to included features provide by others such personalisation or recording of results. We are committed to updating the resource on a monthly basis for the foreseeable future.

We are also planning to include "apps" (software that runs on mobile devices), and other software that may be of use such as screen readers and voice recognition.

The resource currently only includes programs aimed at treatment which run on a personal computer and are available in the English language. We are very aware that there are other information technology based resources that could be of value to people with aphasia. One category is generally known as "apps". Short for applications, apps are pieces of software that run on portable devices such as smart phones or tablet computers. There are some of these that are specifically aimed at people with aphasia, both for treatment and for assistive functions such as communication aids. We are also conscious that there are many programs and packages that are not intended specifically for people with aphasia but may nevertheless be of immense potential benefit to them. There are some which may be useful as aids to treatment, such as software designed for teaching English as a foreign language, but also a large range of software which may be able to reduce the impact of a communication disorder on a person's quality of life. Examples of the latter include communication aids, text to speech software (screen readers), and voice recognition software which has already been investigated as an aid to writing for people with aphasia.

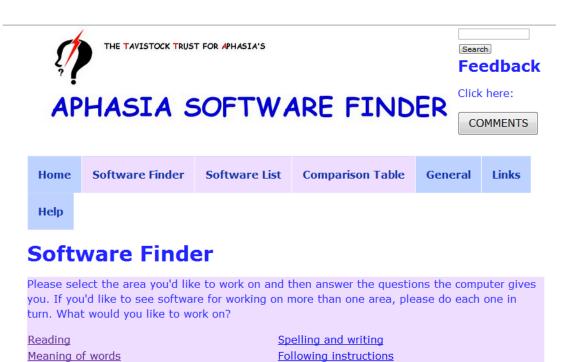
We are actively seeking funding to expand the scope of the resource to include apps and other potentially useful software. We are also continually seeking to improve the aphasia friendliness of the resource; indeed we hope to add a special section aimed at people with severe aphasia although it is unlikely we will be able to achieve full accessibility for some with aphasia, as we cannot compromise the sites core purpose, which is to deliver relatively complex information, albeit as clearly and simply as possible.

We welcome any comments or suggestions about any aspect of the resource.

## References

Katz R, 2010 "Computers in the Treatment of Chronic Aphasia", Semin Speech Lang 2010; 31(1): 034-041

Rose T, Worrall L, Hickson L & Hoffmann T, 2011 "Exploring the use of graphics in written health information for people with aphasia" Aphasiology, 25, (12), 1579 - 1599



Time concepts

**Listening** 

Figure 1: The software finder page

Conversation rules

Numbers and money

<u>Talking</u>

Type of exercises:	Letter and word recognition. Written naming.
	Multiple choice matching tasks and gap filling naming tasks.
Access:	Keyboard and/or mouse
Developed with SLT:	Yes
Theory based:	Not a particular theory base, SLT experience
Record own speaking attempts:	N/A
Correction of own speaking attempts:	N/A
Number of exercises:	Over 700
Easy to use?	To some extent
Customisation/personalisation:	No
Error handling:	Only for picture naming exercises.
Prompts/cues given:	Only in the deluxe version.
	Cues given for picture naming exercises but not other 6 exercise sets
Record results:	Yes
Tutorials:	No

Figure 2: Part of an analysis at the level meant for therapists