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Keyboarding and Touch Typing for Children

Learning to use the keyboard effectively is an important skill for any child. Computers are becoming ever more prevalent at school and home and they can make a huge difference in producing work quickly and legibly. For many children, some time invested in developing keyboarding skills can have an enormous impact in their ability to make best use of a computer.

Becoming more familiar with the keyboard or learning to touch type (being able to type with multiple fingers without looking at the keyboard) can be very helpful for children with a range of disabilities. For children with visual impairments, this skill can help with their orientation on a keyboard and you can find a separate factsheet, “Vision Impairment and Touch Typing” that provides further information in this area. Children with Specific Learning Difficulties can benefit from learning to type through the physical aspect of learning letter patterns. While children with more profound motor difficulties may find traditional touch typing access to the keyboard difficult, this does not necessarily preclude them from developing their own method of typing that is faster and more presentable than handwriting. Some children with Developmental Co-ordination disorder (DCD), or dyspraxia have also shown encouraging results when given time and encouragement to develop more effective keyboarding skills.

Why Learn to Type

For many children and adults with disabilities, handwriting can be very difficult for all sorts of reasons. A range of handwriting schemes and interventions are available to support children who are having difficulty with handwriting. Further information in this area may be available from local schools or LEA specialist teaching services and Paediatric Occupational Therapists. The National Handwriting Association also has a range of useful information, publications and courses in this area. While for all children learning to type more effectively is important, for children who are already having handwriting or recording difficulties this is especially so.

The keyboard has many important advantages;

- It increases legibility and clarity of presentation
- Increased speed of input
- Spelling- learning physical letter patterns on the keyboard can be helpful with the spelling of some words
- Reduces the physical pressure and concentration of handwriting- pressing a key can be much easier than manipulating a pen or pencil
- Editing work is easier
- Confidence. The keyboard may allow the child to record work more independently and to produce the required work in the time allowed.
- A reduced demand on visual perception skills. Some individuals with poor visual perception find it difficult to move their focus from screen to keyboard (and perhaps to a classroom whiteboard). By learning to touch type, the individual reduces the demand they make on their visual perception skills by not having to look at the keyboard

However, before a word processing device can be used usefully in the classroom, the child needs to have had devoted time to developing the skill of keyboarding, in the same way that we all spend time developing handwriting skills. As a rule of thumb, it is a good idea to have a typing speed that is equal to, or surpasses handwriting speed before a keyboard is used as a regular recording aid in the classroom.

When is the right time to learn?

Obviously, this can vary from individual to individual and there is no absolute answer to this question. Literacy levels can affect the ability of someone to be able to type. Other factors to do with physical motor skills and a spatial awareness of the body also affect this. As a rule of thumb, a child needs to have a spelling age of around a seven year old and up to progress well with learning to touch type (by which we mean not having to look at the keyboard). However, children with literacy difficulties may then find that learning to type, particularly with a system that uses real words may be beneficial to spelling.

What to look for

Proper posture and keystroking techniques are important both for skill development and for the prevention of physical problems. Whilst our expertise lies with adaptive

hardware and software, some advice about ergonomic furniture can be found in our “Ergonomic Workstations” factsheet.

If you are intending to use a software based typing tutorial package, most will have a section which will teach the importance of good technique, posture and the duration of use. Taking regular breaks away from the computer is important, and during a sustained period of typing “micro-breaks” involving the loosening and “shaking out” of hands arms and shoulders can be helpful every few minutes.

Keyboards

An alternative to the standard computer keyboard which has 102-105 keys, can be helpful for some children. Younger children may find a smaller keyboard easier to use, where the keys themselves are smaller, so requiring less stretching. Some keyboards also feature an “a-shape”, such as the MyKids keyboard, which allows the hands to adopt a more natural position



Some children also find it easier to use a compact keyboard when first beginning to use the keyboard. This has the same size keys, but there are fewer of them so making familiarity easier to attain.

Product	Supplier
MyKids keyboard and mini mouse	Grape County (www.grapecounty.co.uk)
PSK 3100U super-mini keyboard (currently only available in US English layout)	Intollect (www.intollect.com)
Small or Compact keyboards	Maxess Products, Inclusive Technology, Keytools

There are a wide range of alternative keyboards available. Information about single handed keyboard use can be found in our “Keyboard- single handed use” factsheet.

Different letter cases and higher contrast keytops can also be helpful. A number of lower case keyboards can be bought, though Kidgloves and large print keyboard stickers are also helpful here. Kidgloves provide a durable membrane which do not

interfere with the process of typing and are available in high contrast and lowercase styles.

Product	Supplier
Kid glove and keyboard	Keytools, Granada Learning, Inclusive Technology
Keyboard Stickers	Keytools, Granada Learning, Inclusive Technology

Software

A good typing program will allow the child to develop their skills with the keyboard quickly without losing motivation to use the computer. A number of important factors make a good piece of touch typing software. However, the first consideration is the needs of the individual. Are they likely to need a highly motivating, engaging software title that feels more like a game, or would they respond well to a structured approach that put a greater emphasis on key skills and good keyboarding habits? How old is the user and where are they likely to be using the software? The best software should include the following features:

- Ergonomic and safe keyboarding guide or section
- Provide a multi-sensory approach, where both sound and images are used to re-enforce instructions and allow repetition of instructions if possible
- A large, clear on-screen keyboard which shows the position of both keys and your fingers is very helpful
- Does the software use real words? The use of real words rather than nonsense letter patterns as soon as possible within practice exercises can be very helpful .
- Can the programme preferences be changes to take account of the user? Being able to change font size and style, background and text colour, the use of sound, speed and accuracy targets to be achieved are all very helpful
- That it does not try to teach too much too quickly. The focus should initially be on accuracy and not speed and should allow the user to practice for short periods of time, rather than relying on longer sessions to allow progress. The emphasis with children should be short but regular practice.
- Can progress be tracked and recorded?

The programs themselves...

There are many touch typing programs now available aimed at the student market.

There are of course some well tried and tested methods of typing tuition which do not involve a computer. A board game “keyboard Crazy” is being used in some schools to introduce the keyboard through literacy activities.

Product	Supplier
Keyboard Crazy	Keyboard Crazy limited

Some professionals have advocated methods of keyboarding for its therapeutic value for children with disabilities. Dorothy Penso outlines her “vertical keyboarding method” in her book.

Product	Supplier
Dorothy Penso: Keyboarding skills for children with disabilities (1999)	Wiley Publishers Ltd ISBN 1 86156 101 6

Below we have identified a number of current titles being recommended for children with a range of disabilities.

Keyboard Familiarity programs

Some children are identified early as likely to need a keyboard based approach to recording. Others may be unlikely to acquire these skills. In all cases being able to move around the keyboard more quickly is beneficial. Some software will introduce the concept of “letter” finding in a fun way. Others may combine this skill with spelling activities.

Product	Supplier
Speedy Keys	Granada Learning ,Inclusive
First Keys to Literacy 2	Widgit Software

Touch typing programs

A number of programs are available commercially to run on a PC (and Apple Macintosh). We have not reviewed them here in detail, but have tried to provide an

indication of the type of need they may address. Further information and description of typing tutors for dyslexic children is available from IanSyst Ltd, or from the suppliers.

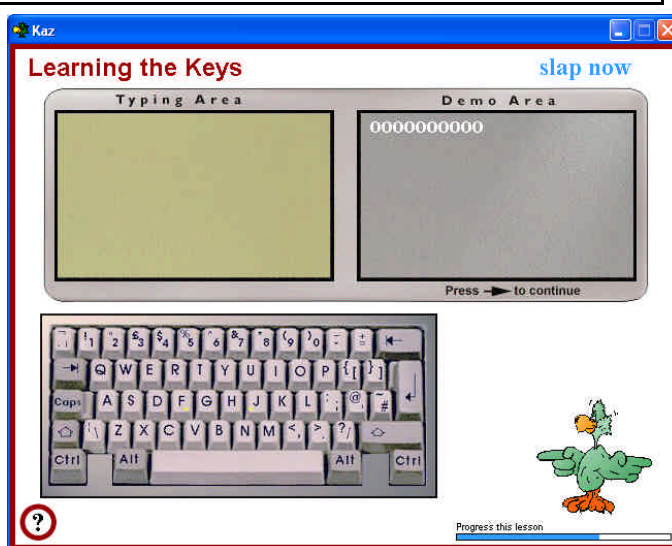
Product	Supplier
English type Junior/Senior	Iansyst, Englishtype

Designed for use with dyslexic and dyspraxic children, this program has a clear and uncluttered display and structure. It is linked to the English National Curriculum, and options allow you to choose a level (Key stage 1, 2 or 3) It uses real words as soon as possible and has a mix of exercises, practice and games. There is good sound support with a real UK English voice. Teacher/parent options allow users to be monitored, for goal accuracy targets to be adjusted and for new lessons to be accessed where a student needs to be moved on. A demonstration version is available from www.englishtype.com.



Product	Supplier
Kaz A-Z	Iansyst

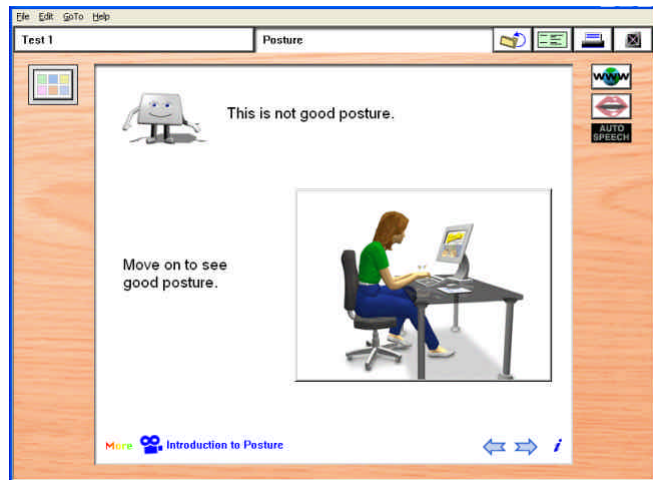
This program uses five specially designed phrases that use all the letters of the alphabet to help teach children to type. It makes good use of sound and graphics, though is less distracting than some other typing programs. Speech is UK English and instructions are very clear. You are able to install an audio or text only version. It has a good pictorial representation of the keyboard and a very good guide on the position of the hands and wrists. It claims that the user can learn to type in just 90 minutes by completing the full A-Z module, though we would not



normally suggest that a child does this in one go! The focus is initially on accuracy, though later the program looks at building speed through the “speed builder”. The program does let you return to the point you had last reached and it does allow you to skip modules. Alongside the program you are able to install the “Kaz guardian Angel” which reminds the user to take regular breaks from the keyboard.

Product	Supplier
UltraKey V4	Inclusive Technology

This program has more flexibility than most, allowing you to skip certain sections and return to them later. It allows you to customise text size, and the display settings and includes a very clear pictorial representation of the keyboard and hand position. It has good screen speech support and good sections on posture and the home keys that includes the use of video. Each lesson includes practice using real word and sentences.



Ultrakeys has classroom management tools and it can be installed on a network with the correct license, though a reduced cost for the home user is also available. Ultrakey is also available as a palm application for the AlphaSmart Dana.

Product	Supplier
Type to learn 3	Iansyst

This is a typing program aimed specifically at children. It has a combination of games and exercises and its fun approach proves motivating and fun, following the travels of Father Time. The program exhibits a good pictorial representation of the keyboard and hands and has plenty of preferences to allow the program to be customised to the user. For example, the goals and regularity of games that are presented. Some of the instructions



and text are read by the computer, though not all. It is an American program, so some of the spoken instructions have an American “twang” and the program assumes that the user is using a US keyboard layout. There are 21 “missions” lessons, four different games and a speed building exercise. You cannot skip lessons once started. The software allows you to set up log-ins for individuals and classes.

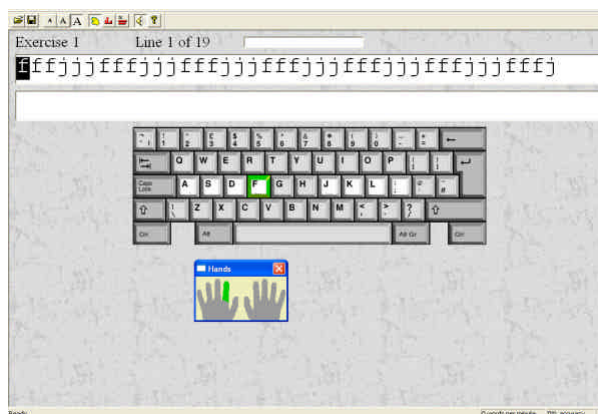
Product	Supplier
TypeQuick	Inclusive Technology

This program comes from Australia and follows the adventures of a kewala bear. The graphics and adventure-story element of the program make it appealing for many children, though each lesson takes between 20-30 minutes which for some is too long. Each lesson must be completed in order to record progress. There are 10 lessons in total. Many children will find this great fun and very motivating. However, the onscreen display of the keyboard and hands is not the best during the exercises and for some, the encouragement to go faster (as opposed to promoting accuracy) may prove to be a deflating distraction.



Product	Supplier
Iota Touch Type	Inclusive Technology

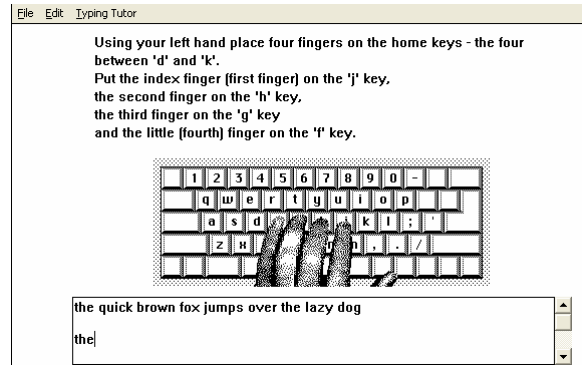
Touch type provides a clear, uncluttered screen. Options allow the text size and style to be changed and the program also speaks the next letter to be typed. The program itself provides a sequence of simple exercises; there is no “fun” element to this software title. It keeps a record of speed and accuracy which can be printed off. The program also saves the user’s position, though it is possible to skip



between lessons freely.

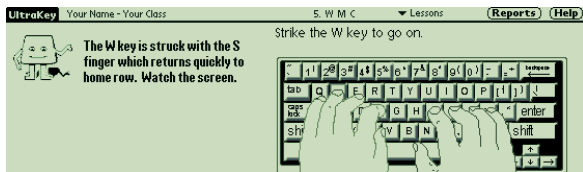
Product	Supplier
Five fingered typist	Inclusive Technology

Children who need to use one hand to type may find the “Five fingered Typist” program helpful. This program redefines the home keys (fghj) and takes the user through a series of lessons for either right or left handed use. This program has no sound, but features an onscreen keyboard and hand representation. Unfortunately, this program does not display in full screen. The program has little guidance on posture, but does provide some useful tips on positioning specifically for a one handed keyboard user. Further information about keyboarding with one hand can be found in our “Keyboard- single handed use” factsheet.



Typing Programs on Portable Writing Aids

It may also be worth considering the typing tutors that are available for some Portable Writing Aids . Typing tutors are available that will run on the AlphaSmart 3000/Neo. The Neo is supplied with Kaz A-Z SmartApplet as standard and UltraKey is available to run on the AlphaSmart Dana.



Product	Supplier
Kaz A-Z for the AlphaSmart Neo	Don Johnston
Ultrakey for the AlphaSmart Dana	Don Johnston

Free resources

There are a number of freeware or shareware programs that can be downloaded from the Internet. Senselang, from www.senselang.com is one such example that can be used on-line or downloaded and is a good example of a number of the positive elements to look for, as outlined earlier. A very full list of further resources and information can be found at <http://typingsoft.com> .

* Messages charged at standard rate. You will receive two confirmation messages charged at £1.50 each. AbilityNet will receive your donation net of charges applied by mobile network operators and a processing fee. If you have any questions regarding this service, please call 020 7549 2222.