

Can speech recognition software improve students
independent writing skills in mainstream school
and exams?

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The Theory of Social Constructivism

showed aspects of high motivational potential such as emphasis on writing in natural settings, collaborative writing, and the dialogue dimension of written communication (cited in MacArthur et al 2008, p145). This approach suggested that if a child were able to write in a natural way, it became meaningful, authentic and was able to nurture student's positive beliefs in writing and created a positive emotional classroom environment. These are the conditions that determined the student's motivation to write (MacArthur et al 2008 p145).

The 'Journey to Independent Writing' either through a scribe or VAS can be liberating.
However,

the student loses the ability to become an independent writer.

Derer, Polsgrove and Herbert (1996) noted that the students with disabilities who use assistive technology were enabled to successfully communicate their ideas into writing (cited in Yarbrough, 2005).

- Riddick (1996) found through her research that “children with dyslexia felt disappointed, frustrated, ashamed, fed up, angry and embarrassed by their difficulties” (Riddick 1996 p129).
- Scribes who work alongside students supporting their writing have to make sure that they facilitate their students' writing and not take over the role of scribe, as this limits the students' life chances and creates barriers to learning (Lindsay, 2007).

84% of teachers thought that it was important that they are trained in teaching children with dyslexia

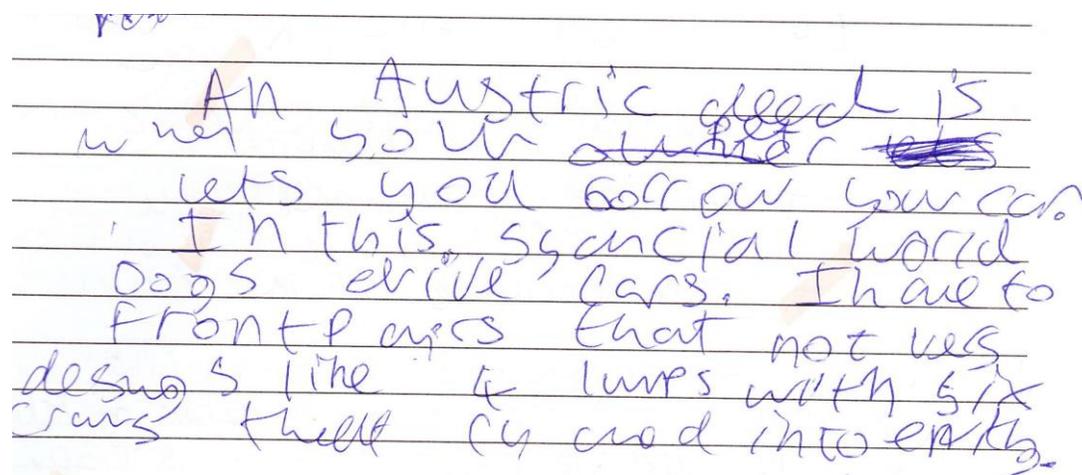
- Macarthur, Graham and Fitzgerald (2006) argued that academic achievement is judged through being able to write essays and exams. Macarthur, et al., (2006) discuss the power of writing and how it conveys knowledge and ideas.

20% of children in the UK are classified with SEN

- “Technology will help the government in its aim of reducing the proportion of children classed as SEN by helping all children with their learning. There is a role for assistive technology to keep people out of the special category” Mark McCusker chairman of BATA and Texthelp.
- Effective use of technology depends on teachers with the skills to make best use of it. However, despite initiatives to improve teacher training in this area there are still shortcomings.

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CC is a year 10 student with dyspraxia, who although touch types, has spelling and analytical difficulties. When she talks using voice recognition software she becomes more of an independent writer and her thoughts are clearer as she is not in cognitive overload, from spelling, composing a sentence etc. She becomes more analytical, and her N/C grades go from a 3c to a 5c

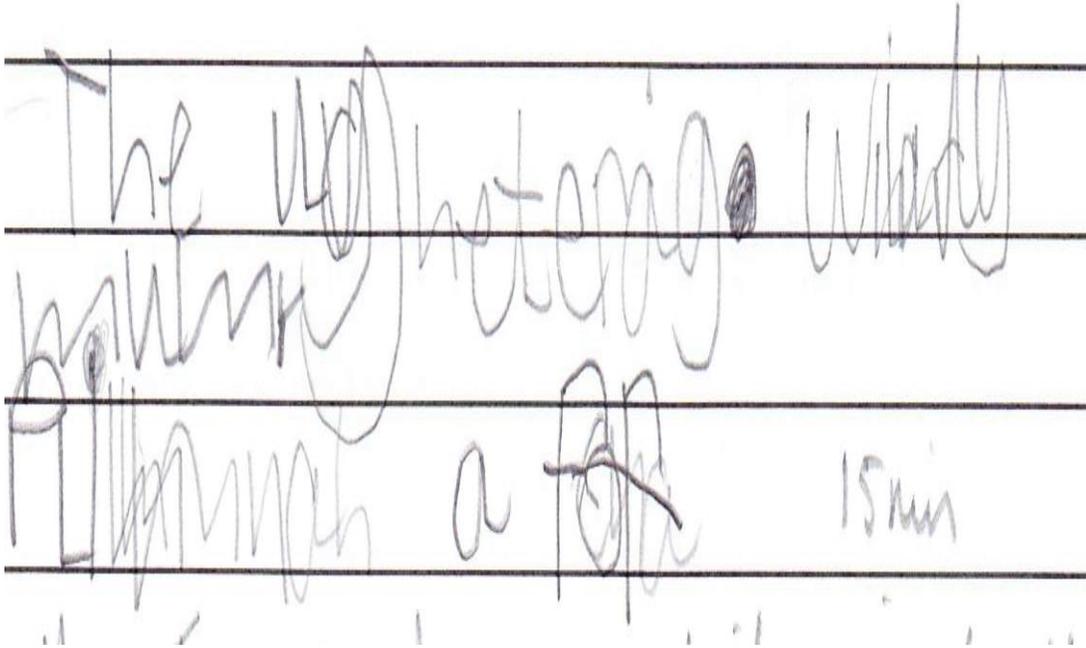


An Altruistic deed is
when your ~~friend~~
lets you borrow your car.
In this, special world
Dogs drive cars. I have to
front paws that not very
designed like 4 lumps with six
claws that can crawl into earth.

- An Altruistic deed is when your pet lets you borrow his car. In this suicidal world Dogs drive cars. I have to front paws that are not designed to drive cars. However, with paws like 4 lumps with six claws on each, that are used to walk on the earth. Driving makes life easier.

Tom is 14 years in year 10

This is the first time that Tom has been able to write a sentence. He was one of the most excited students I have had. T has Downs Syndrome and has such a physical difficulty writing that he has never had an assessment for his writing abilities.



The handwriting is very messy and difficult to decipher. It appears to be an attempt to write a sentence on lined paper. The words are written in a cursive, somewhat illegible style. The text is spread across four lines. The first line contains "The", the second line contains "dog", the third line contains "park", and the fourth line contains "a park 15min".

I am Thomas 14 years old.

I go to the **my dog**

too we provide dog

i write dog by a bird park

I go to but Park wake my dog my dog may a bird park.

I go to the park by dog all to my dog day is

The initial Pilot Programme. Over 6 weeks the grades of the student [J] started to improve; his self-esteem grew and the motivation to write and take part in activities improved.

Subject	Date	Grade	Total weeks of dragon training	Total number of hours 1:1	Total independent hours
English	10/3/14	2a	1	4	0
Creative writing	17/3/14	3c	2	8	0
Homework	24/3/14	3c	3	12	2
Classwork	14/4/14	4b	4	16	6
Homework	16/5/14	5a	6	24	14

Table 4: Showing Pre / Post intervention Social skills Assessments

Elbaum and Vaughn (2003) discussed how, “academic interventions were aimed at helping students increase their academic knowledge or develop more effective learning strategies” (p3). **Improving self esteem.**

Categories	Pre- intervention			Post-Intervention		
	Red (Needs Work, very few skills)	Amber (Skills emerging)	Green (No concerns)	Red (Needs Work, very few skills)	Amber (Skills emerging)	Green (No concerns)
Self- awareness and self-esteem	4	1	2	2	4	1
Body Language	2	3	2	0	7	0
Conversation Skills	7	0	0	0	7	0
Friendship Skills	5	1	1	0	5	2
Assertiveness	6	1	0	0	7	0
Totals	24	6	5	2	30	3

The challenge

The challenge created by the change in the political landscape is for schools and teachers to keep abreast of the technology so that they can give advice on its use in the classroom.

A student typically sees something that will help them and they are up and running in seconds, but teachers need a much more strategic view of how it will fit in and help with the lesson plan.

Mark McCusker is Chairman of the British Assistive Technology Association (BATA) and CEO of Texthelp:

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So...

Can voice activated software support independent writing skills in a mainstream school environment for children with SPLD and SLCN?

Will it raise self-esteem?

And will the students become independent writers?

I hope that my research will provide some initial answers, and that this presentation will enable you to think about the issues I have raised.

Thank you for listening.