

Warrington Education and Lifelong
Learning Department



Keyboard Crazy Project

February 2004 – July 2004



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Keyboard Crazy Report

Introduction

Keyboard Crazy is an innovative game, which enables pupils to develop Keyboard Skills at a very rapid rate. It is a stand alone game and as such does not take up valuable IT time at the computer. The game consists of a mock keyboard, faithfully reproduced to represent a computer keypad thus enabling generalisation of skills when the child transfers back to the computer.

It has various interchangeable inlays ranging from picture phonic recognition, through lower and upper case inlays for keypad familiarity (as well as providing activities for matching lower to uppercase letters etc.). A blank inlay is also provided for pupils to complete, once they have mastered where the keys are. A blue/grey inlay is provided to enable left and right hand co-ordination and keypad orientation to be taught.

The various different coloured packs of letter tiles provided with the game enable pupils to actually place the keys in the right position using one of the inlays provided as well as associated word games such as scrabble, lexicon type games etc. It provides learning opportunities for up to 3 or 4 pupils at time (using 1 game) whom can work collaboratively with each other, discussing and rationalising what and how they have completed tasks set. The game can provide both staff and pupils with stimulating, challenging and fun activities, with an element of competition.

It is particularly relevant to mainstream providers at Key Stage 1 and 2 including Nursery and Reception and to KS 1 – 4 providers within special educational settings/schools.

The University of Liverpool has undertaken a more detailed evaluation of the game and this can be viewed at www.keyboardcrazy.co.uk along with other details of how schools have used the game in school and how it has impacted on their children's attainments etc.

Background to the Project

As a result of a successful introduction of “Keyboard Crazy” into Green Lane Community Special School and a subsequent “showcase” afternoon generated a great deal of interest from other schools across Warrington LEA. After some discussion with the Director for Education and Lifelong Learning and other interested parties, it was agreed to organise a pilot across the LEA to spread the good practice and develop further applications of the game in mainstream Primary and High schools.

The game was originally developed to aid the improvement of keyboard/typing skills without pupils monopolising valuable computer time. It utilises a multi sensory approach including Visual, Auditory and Kinaesthetic Learning styles (VAK) as well as a great deal of fun and an element of competition. However teachers have identified its potential for use across other subjects as an aid to learning and teaching.

The game was never intended as a tool solely for pupils with special educational needs (SEN) as the developments initiated by schools have shown equal success with pupils across the whole spectrum of needs including Gifted, Able and Talented pupils (GAT).

Initially a total of 14 schools indicated a commitment to the project consisting of 12 Primaries, 1 High school and 1 special school.

Eight schools have submitted their findings for inclusion in this report.

It should be noted that in an attempt to ensure the project in schools was manageable, without increasing the bureaucratic burden on staff, collection/collation of results etc was kept at a simplistic level and as such this report only shows “headline” results and should be taken in that context. More detailed evaluations can be found on the game’s Website as stated earlier

The pilot began in February 2004 and ran for a period of some 14/16 weeks. Schools were asked to indicate how they would be utilising the game across school or within a particular cohort of pupils. Schools were supported in the implementation of the game by network meetings and the staff of “Keyboard Crazy”. As a result the reports include projects based around typing speeds/keyboard skills as well as phonic awareness, spelling programmes and High Frequency Word Lists (HFW) etc.

Baseline assessments were conducted to ascertain pupil levels and a final summative assessment took place to demonstrate progress over time. Some schools provided an interim report allowing for “crude” comparisons of rates of progress over the period.

[Schools providing reports/information](#)

[Green Lane Community Special School, Oakwood Avenue Community Primary School, Beamont Community Infant School, Latchford CE \(Aided\) Primary School, Penketh South Community Primary School, St. Barnabas CE Primary School, St. Bridget’s Catholic Primary School and St. Margaret’s CE Voluntary Aided Primary School.](#)

Outline findings of the project

[All schools noted an increase in motivation, self-esteem and confidence.](#) According to the focus of the project schools also noted an increase in pupil performance within aspects of literacy or, improved typing speeds or improved keyboard recognition skills

Some schools noted an improvement in behaviours from those pupils involved in the project who have Emotional, Behaviour and Social Difficulties (EBSD). The improvements made by pupils are not entirely attributable to Keyboard Crazy, as the game supplements all other strategies and interventions available to staff, but it has certainly had a significant impact on those pupils and the staff involved in the project.

The results that follow show some significant improvements amongst individual pupils, in particular one Y3 pupil with SEN whose spelling age improved a whole 12 months from 5.8y to 6.8y in just 12 weeks!

Some schools have shown that the game has a cross-curricular application, beyond simply typing skills and keyboard awareness e.g. inclusion in the Literacy Hour, spellings, phonic awareness, key vocabulary (Science) and MFL to name but some.

One school identified pupils typing speeds increasing by an average of 44% over the period of the project.

School Reports

1. St. Margaret's CE Primary

The school has a total population including nursery of 532, 22% of the population have SEN including 4 who have statements of SEN and 20% are eligible for Free School Meals (FSM).

2003 Key Stage 2 (KS2) percentage achieving Level 4 or above results are as follows:

English	73%
Mathematics	73%
Science	86%

School selected 10 Y3 pupils, 8 of which were at School Action Plus (SA+) with significant learning difficulties, all of whom were working within Level 1 of the National Curriculum (NC).

The programme concentrated on spelling ages and typing speeds of the selected group. Pupils received a maximum of 2 x 30-minute sessions per week supported by an NNEB as well as undertaking some independent work on the tasks within the group and was used as an "add on" to the usual multi sensory activities/programmes the children followed.

The programme was interrupted by the long term sick leave of the NNEB and an Ofsted inspection during the pilot time span and these factors need to be taken into account within the context of the results especially as it was the typing/keyboard skills that suffered mostly.

Table of results: Spelling ages were calculated using Daniels and Diack

Baseline assessment at Feb 04:

Child	Spelling Age	Typing Speed	Eng 1	Eng 2	Eng 3	Overall level
1	6.8y	2m 15s	1	1	1	1
2			5.8y	2m 44s	W	W
3	6.4y	1m 57s	2	1	1	1
4	6.5y	2m 10s	1	2	1	1
5	8.2y	2m 24s	1	2	1	1
6	6.7y	2m 15s	W	W	W	W
7	6.5y	2m 07s	1	1	1	1
8	7.0y	1m 58s	1	1	1	1
9	7.3y	2m 13s	1	2	1	1
10	7.3y	1m 56s	1	1	1	1

Summative Results June 04

Child	Spelling Age	Typing Speed	Spelling age progress	Typing speed progress
1	7.1y	2m 03s	+5 months	-12s
2	6.8y	1m 57s	+12 months	-47s
3	7.1y	1m 55s	+9 months	-2s
4	7.1y	1m 43s	+8 months	-27s
5	8.2y	1m 59s	N/a	-25s
6	6.8y	2m 08s	+1 month	-7s
7	7.0y	1m 42s	+7 months	-25s
8	7.1y	2m 04s	+1 month	+6s
9	Left school	N/a	N/a	N/a
10	7.9y	2m 16s	+6 months	+20s

The programme obviously impacted on child 2 with both typing speed and spelling age showing the biggest and most significant improvement.

On average spelling ages increased by 6.1 months and typing speeds by an average of 14.9 seconds (on a piece of typing lasting typically 2 minutes) over a 14 week period disrupted by holidays, illness and an Ofsted Inspection during May.

The two pupils who showed least progress within the spelling part of the programme are pupils who are causing concern generally within school because of a lack of progress in all areas, due to significant learning and behaviour needs.

Again school noted how the VAK and enjoyment aspect of the game motivated pupils and increased their confidence to “take a risk” with their answers etc.

2. St Bridget's RC Primary

The school has a total population of 192 of which 32.7% have SEN and 40.6% are eligible for FSM. Pupils on entry to school have below average skills

2003 Key Stage 2 (KS2) percentage achieving Level 4 or above results are as follows:

English	64%
Mathematics	73%
Science	82%

The main focus was to improve children's typing speed with a focus group of 7 within Y 4, who had a cross section of needs and strengths.

Child 1	Child in Public Care
Child 2	Statement for ESBD
Child 3	Behavioural and learning difficulties
Child 4	Behavioural difficulties
Child 5	Specific learning difficulties within spelling
Child 6	Average attaining pupil (also an identical twin)
Child 7	Able pupil

The focus group were given opportunities to use the "Keyboard Crazy" game with a LSA. For a period of 15 minutes, three times a week for a period of 12 weeks. Tasks ranged from placing lower and upper case letters on the boards, the use of the Blue/Grey letters – for left right tasks/co ordination and ultimately placing the Blue/Grey tiles on a blank background. Children created their own strategies/mnemonics for remembering where keys should be placed.

Pupils were given a standard text to write, which consisted of a piece of extended writing of approximately 30minutes and repeated the same text at the end of the project.

Outside of this focus group pupils showed a great deal of interest and so all Y4 were given the opportunity to use the game, on a limited basis, in the following ways:

- Whole class language focus during Literacy, Mathematics and Science lessons where amongst other activities children used them to introduce new and key vocabulary
- Wet Play activities
- Reward for achieving "Golden Time" goals
- A 5 minute filler before school time etc
- Working with work experience students

Baseline assessment 01:03:04

Pupil	Text	Blue Grey Background	Blank Keyboard
1	25min 12m 40s	4m 35s 1m 40s	Incomplete 73sec
2	26min Moved to	3m 02s new school	Incomplete -
3	23min 13m 02s	4m 53s 1m 04s	Incomplete 86s
4	26min 12m 23s	3m 27s 2m 20s	Incomplete 70s
5	30 min 15m 03s	4m 09s 1m 03s	Incomplete 54s
6	34 min 23m 45s	4m 56 1m 40s	Incomplete 140s
7	14 min 9m 40s	5m 56 1m 12s	Incomplete 53s

All the pupils in the focus group have improved their Keyboard skills and are now on average 44% faster than they were at the beginning of the project. Even the class teacher noted that his own typing and keyboard awareness skills had improved significantly!

Children are now able to focus more of their time on the task of word processing when typing work rather than concentrating on finding keys.

The class teacher for Y4 also noted that the game had a significant impact on motivation and enthusiasm amongst the pupils and successes gained resulted in higher levels of self-esteem, which transferred into other areas of the curriculum. In particular it was hugely motivating to pupils who had difficulties with behaviour (as seen in the achievements of pupils 3 and 4 in the focus group).

School believes the project has had a positive impact on learning and both colleagues and pupils from across the school became interested in the enthusiasm and motivation of the pupils and wanted to use the games within their classes! As result the teacher planned activities into Literacy and Science lessons.

School has now begun to explore the possibilities of developing the positive impact created in Y4 into other classes and year groups across the school and to build this in to their School Development Plan.

3. Latchford CE (Aided) Primary School.

Latchford School is a voluntary aided school for boys and girls aged 3-11. The school was newly formed in September 2001 from the amalgamation of two other aided schools with falling rolls. There are 211 pupils on roll including 44 in Nursery. There are 5 pupils with a statement of SEN, 27% of the population have SEN and 25% FSM.

2003 Key Stage 2 (KS2) percentage achieving Level 4 or above results are as follows:

English	79%	L5	29%
Mathematics	64%	L5	21%
Science	86%	L5	21%

The project focused on 7 pupils from Reception across the spectrum of need. Pupil 6 had many absences during the project.

The main focus for the project was to improve keyboard recognition skills, upper and lower case letters, the number of HFW from the National Literacy Strategy (NLS) Reception List, spelling of CVC words amongst all pupils and some pupils to spell words starting/ending with sh/ch.

In terms of improving keyboard skills and hand eye co-ordination pupils were given identical lists of words to complete in 1 minute to include upper and lower case letters, as well as the Teacher/LSA observing how pupils actually typed using the computer keypad.

Pupils then completed a 12-week programme where the game was used to recognise keyboard layout, including the use of lower and upper case letters with overlays inserted into the game's keyboard. Pupils had opportunity to use the game at least 3 times per week with the activities planned into curriculum or support time.

At the start of the project 2 pupils could not recognise all of the upper case letters and had been struggling with this for some time. By the end of the project these pupils could recognise all upper case letters 5 times out of 5 without adult support.

Keyboard recognition results

Pupil	WPM Typed March 04	WPM Typed May 04	WPM Typed July 04
1	4	6	9
2	4	6	9
3	4	6	8
4	4	6	8
5	5	7	8
6	5	Abs	8
7	4	5	5

As can be seen pupils have on average doubled the amount of words they were able to type in 1 minute by the end of the project.

Hand eye co ordination – use of keypad observations

In this programme pupils were given a short, identical piece of writing to complete, to include punctuation and upper/lower case letters.

Pupil	March 04	July 04
1	Used mainly right index finger. Needed reminders to use spacebar and punctuation	Used both hands and thumbs for the space bar 100% of the time. Used space bar and punctuation independently with 90% accuracy
2	Used mainly right index finger. Searched for keys and ran finger along keys whilst searching.	Now uses both hands and thumbs for space bar. Though not yet 100%. Pupil is now much more confident in use of keypad and now does not run fingers along pad.
3	Used right index finger only.	Still uses right hand only but uses index and middle finger as well as thumb for space bar! Again more confidence in use of pad and improved speed and concentration.
4	Used both index fingers but not simultaneously. Kept changing hands. Poor motivation and was searching for keys as pupil above.	Uses both hands for 80% of time. Uses spacebar and punctuation independently. Huge improvement in self esteem and attitude, increase in both accuracy and speed
5	Used rights index fingers only and searched for keys. Some use of spacebar independently. Prompting needed to complete task	Uses both hands and a range of fingers. Uses spacebar and punctuation independently, self corrects. Final passage was typed with 100% accuracy and no prompts.
6	Used right index finger only. No independent use of space bar or punctuation. Searching for many of the keys.	Uses both hands 75% of the time but will cross sides from time to time. Some independent use of spacebar and punctuation but more aware of where keys are and spends less time searching for keys.
7	Mainly used index finger of left hand. No independent use of spacebar or punctuation. Poor levels of concentration. Much praise and prompts to encourage pupil. Much searching for keys by running finger along keys.	Uses both hands 100% of the time but usually only 1 or 2 fingers on each hand and thumb for space bar. Uses spacebar and punctuation independently. Self corrects though still some searching of keys.

Almost all pupils are now using both hands and thumbs to type and the “hunting for keys” along the rows of letters has reduced significantly.

A further aspect of the project was to see if using the keyboard impacted on the pupils spelling abilities in terms of the first 45 words on the NLS HFW list (and the next 20 for some pupils).

Number of HFW spelt correctly from NLS Reception List plus next 25 for some pupils

This was accomplished using the various inlays to prompt pupils to match/build words using the tiles and then placing tiles on keypad once word was completed.

Child	Words Spelt correctly March 04	Words Spelt correctly July 04
1	43	45 +20 of the next 25
2	42	Abs
3	30	37
4	27	33
5	36	43 +20 of the next 25
6	26	30
7	39	45 +18 of the next 25

It was noted that the use of the keyboard and associated games increased the pupil's motivation and the enjoyment experienced contributed to the pupil's increased performance. The multi sensory approach offered to the pupils of, communicating with each other and the staff about the patterns in spelling (auditory). The physical handling of the tiles and keypads in both building the words and then placing them on the boards (visual and kinaesthetic) contributed greatly to the pupil's performances. Spelling did not simply become a test of memory but an awareness of strategies and rules for spelling words correctly and previous inhibitions about spelling were reduced an element of fun introduced.

At the beginning of the project it was noted that only 3 of the 7 pupils could spell Consonant-Vowel-Consonant (CVC) words with confidence and with 90% success. By the end all pupils attacked their spellings of CVC words with confidence and all but one pupil could do so with 90% success.

In terms of pupils spelling words starting/ending with sh/ch **no** pupils could spell with any level of success.

By the end of the project 4 pupils could spell words ending or starting with sh/ch with high levels of confidence and with at least 50% success of the words given.

3 pupils could spell words starting with sh/ch with at least 60% success.

4. Penketh South Community Primary

The current school population is 241 with 2 pupils having a statement of SEN. 13.7% of the school population have SEN and 1.7% FSM both being below national average. Attainment on entry to school is broadly average to above average.

2003 Key Stage 2 (KS2) percentage achieving Level 4 or above results are as follows:

English	79%	L5	11%
Mathematics	79%	L5	39%
Science	96%	L5	46%

In its last Ofsted Inspection (18th September 2000) it was noted that ICT skills and standards were below average in comparisons to standards in English, Mathematics and Science which were above average.

The main focus of the project was to increase typing speeds/keyboard awareness skills across the whole of Y 3. Pupils worked on the game during ICT lessons identified on the school timetable. The programme on average lasted 14/15 weeks and concentrated on using the games keyboard recognition activities using upper/lowercase inlay boards as well as the blue/grey inlays. Pupils played the games in sets of 2 or 3 dependent on activities.

Results of Keyboard Recognition Speeds

Child	Date	Time	Date	Time	Date	Time
1	02:02:04	14m 26s	N/a	N/a	25:05:04	2m 36s
2	02:02:04	6m 48s	13:05:04	4m 51s	25:05:04	1m 10s
3	02:02:04	7m 39s			25:05:04	1m 58s
4	03:03:04	9m 01s	13:05:04	5m 50s	25:05:04	1m 31s
5	03:03:04	4m 45s	13:05:04	4m	25:05:04	1m 21s
6	03:03:04	12m			25:05:04	1m 56s
7	03:03:04	12m			25:05:04	1m 26s
8	03:03:04	14m 25s	13:05:04	12m 07s	25:05:04	1m 58s
9	03:03:04	12 m			25:05:04	1m 56s
10	03:03:04	7m 42s			25:05:04	1m 16s
11	03:03:04	14m			25:05:04	1m 56s
12	03:03:04	12m			25:05:04	1m 56s
13	03:03:04	9m 32s			25:05:04	1m 36s
14	03:03:04	12m			25:05:04	1m 55s
15	03:03:04	12m	13:05:04	11m13	25:05:04	1m 29s
16	03:03:04	14m			25:05:04	1m 15s
17	02:02:04	13m 31s	25:05:04	10m 25s	02:07:04	5m 33s
18	02:02:04	9m 36s	25:05:04	7m 28s	02:07:04	5m 51s
19	02:02:04	5m 59s	25:05:04	4m 30s	02:07:04	4m 23s
20	02:02:04	6m 02s	25:05:04	6m	02:07:04	5m 51s
21	02:02:04	15m 45s	25:05:04	13m 43s	02:07:04	15m 10s
22	02:02:04	7m 06s	25:05:04	7m 01s	02:07:04	7m 25s
23	02:02:04	6m 18s	25:05:04	6m 02	02:07:04	4m 32s
24	02:02:04	7m 58s	25:05:04	6m 32s	02:07:04	5m 04s
25	02:02:04	Abs	25:05:04	8m 26s	02:07:04	5m 34s
26	02:02:04	10m 33s	25:05:04	9m 36s	02:07:04	5m 21s
27	02:02:04	8m 26s	25:05:04	7m 32	02:07:04	3m 35s
28	02:02:04	7m 42s	25:05:04	5m 30s	02:07:04	2m 32s
29	02:02:04	14m 30s	25:05:04	12m 02s	02:07:04	8m 06s
30	02:02:04	2m 58s	25:05:04	1m 56s	02:07:04	1m 30s
31	02:02:04	5m 33s	25:05:04	4m 21s	02:07:04	3m 15s
32	02:02:04	11m 59s	25:05:04	8m 06	02:07:04	Abs
33	02:02:04	11m 44s	25:05:04	8m 43s	02:07:04	6m 15s
34	02:02:04	8m 47s	25:05:04	6m 32s	02:07:04	4m 38s

Average speed for completing the inlay before the pilot began was 9 minutes and 31 seconds at the end of the programme that had been reduced dramatically to 3 minutes and 41 seconds and pupils were now far more confident in using the keyboard.

In addition to the project school used the game in literacy lessons working on such areas as spellings, plurals, antonyms, synonyms and capital letters. One creative teacher even used the game as a warm up activity in PE!

5. St Barnabas CE Primary

St Barnabas is a Church of England aided primary school and the schools intake area continues to be one of high unemployment and social deprivation. There are currently 195 pupils on roll with an additional 38 attending Nursery. There are 5 pupils with Statements of SEN, 14.4% of pupils are placed on the school's SEN register and 18.5% have FSM. When they begin Nursery, children's attainment and experiences vary considerably but are generally below what is typical of 3 year olds. This is particularly so in their personal, social, and emotional development and in their spoken English, reading and writing.

2003 Key Stage 2 (KS2) percentage achieving Level 4 or above results are as follows:

English	66%	L5	17%
Mathematics	55%	L5	17%
Science	79%	L5	14%

The main focus for the project was to improve the phonic knowledge of 8 children from Reception being assessed on the Foundation Profile (FP) and to investigate the game's impact on concentration and application to task. The phonic picture and lower case inlays were used. **It should be noted that all pupils in this project have SEN.**

The phonics scores shown represent attainments based on a maximum score of 37 on the FP. Activities took place over a 14 week period 3 times per week for 20 minutes with an LSA or class teacher.

Child	Baseline Assessment 1/3/04	Interim assessment 5/5/04	Final assessment 7/7/04
1	0	1	3
2	5	18	20
3	2	8	12
4	17	32	34
5	9	26	31
6	3	12	15
7	1	9	9
8	4	7	Abs

The results show significant improvements by a number of pupils, pupil 1 for instance, has made a 300% increase in his phonic attainment!

The staff noted that concentration levels and attention to task increased over the periods of activity. Child 1 for example found eye contact with peers and adult difficult and whilst keen and enthusiastic to join in any class activity he had a very short attention span and was soon off task. However, it was noted that when the game was introduced he was able to maintain attention to task for 10 minutes or longer when "playing" the game with a peer whilst maintaining eye contact and language interaction for longer periods of time than previous.

Child 5 has English as an Additional Language (EAL) and has made great improvements in all areas of the curriculum; the staff noted that the child's interaction

and the VAK approach has been of great benefit contributing to the rapid progress the pupil has made.

The Head Teacher has been so impressed with the impact the game has had within the Reception class, the school intends to include the practices within its School Development Plan and share/spread the good practice across the school.

6. Beamont Infant and Nursery School

Beamont is a 2-form entry school with 169 pupils on roll and 60 Nursery placements. There are 17% of pupils placed on the SEN register and 20% of population qualify for FSM. Though these figures do not accurately reflect the area serving school, which has high levels of social deprivation. Attainment on entry to school is well below what is normally expected for children of this age.

The school focused on 2 teaching groups (6 pupils, 3 boys, 3 girls in each).

Group 1 was a SEN group who worked on activities based on the HFW these [are attached in appendix A](#) provided by the Warrington Educational Support Team (WEST).

Group 2 were mixed ability and concentrated on developing keyboard skills

Group 1

Children practised their high frequency words using Keyboard Crazy in their literacy lessons, both independently and with adult support. They took part in the following activities

- ◆ Races to complete the keyboard
- ◆ Matching letters of words to written word
- ◆ Making words in a race
- ◆ Practising spellings

They enjoyed using the boards individually but found it more difficult to co-operate and work in pairs. Initially the children were excited by the boards and enjoyed the activities. Some of the children in the group continued to be motivated by the boards but others found it more difficult and were less interested.

Group 1 Crazy Keyboard Trial – High frequency WEST words list 1 & 2

Results in black are baseline assessments from February 04, blue are interim results from April/May 04 and those in red are final results from 2nd July 04.

Child	Read	Spell
A	21/27	11/27
	25/27	22/27
	36/45	25/45
B	16/27	16/27
	19/27	19/27
	35/45	22/45
C	20/27	15/27
	39/45	34/45
	42/45	34/45
D	21/27	12/27
	25/27	18/27
	Absent	Absent
E	24/27	19/27
	26/27	26/27
	41/45	27/45
F	17/27	15/27
	18/27	16/27
	32/45	28/45

Group 2

The game was used in ICT lessons when children weren't working at computers 1 session per week. It was also available some of the time as a free choice activity. In ICT lesson initially children worked in pairs to complete the keyboard as a race.

As the children became more confident they worked individually competing against each other trying to beat their previous performance. Using different boards extended their work. The children enjoyed using the boards and were generally able to co-operate but they preferred to use it individually.

Children with regular access to a computer were initially more confident.

Due to interruption of SAT's and having a final year teaching practise student, school didn't feel they were able to explore the full potential of the boards, but however felt more confident about using them in their planning next year.

Children in the pilot were given 27 words to type, arranged in 3 sentences with a requirement of all full stops and capital letters etc in place.

First Assessment

Group 2	Time (Minutes)	Words Typed/27	Words Correct/27	Full stops/3	Notes (from print out)
A	7	27	22	2	5 capitals missing 1 full stop missing
	4	27	24	3	3 capital letters missing
	3	27	26	3	1 capital letter missing
B	6	27	27	3	All correct
	5	27	27	3	
	4m35sec	27	27	3	
C	10	22	12	0	10 capitals missing. 0 full stops
	10	26	24	0	2 capitals missing. 0 full stops
	10	24	23	3	1 capital missing. 0 full stops
D	10	25	21	0	4 capitals missing 0 full stops
	10	23	13	0	No capitals 0 full stops
	10	20	19	2	No capitals 1 full sop missing
E	10	20	9	0	10 capitals missing 0 full stops
	10	25	13	0	No capitals 0 full stops
	9m 30 sec	27	27	3	All correct
F	10	15	3	0	Caps lock on for 7 words
	10	24	12	0	No capitals. 0 full stops 1 b/d reversal
	10	24	23	3	No capitals used

The results from the typing speed show a mixed response in terms of speed but accuracy of words and punctuation and some capital letters have all shown an improvement.

7. Oakwood Avenue C P

There are 356 pupils on role, 7.3% of the population have a statement of educational need and 19% are eligible for FSM. The school is a LEA nominated enhanced provision for 24 pupils with moderate or global learning difficulties. On entry to Nursery or Reception, pupils are below average in all 6 areas of learning and particularly so in language and communication.

2003 Key Stage 2 (KS2) percentage achieving Level 4 or above results are as follows:

English	75%	L5	13%
Mathematics	63%	L5	18%
Science	72%	L5	30%

The project was delivered to all 12 pupils within the enhanced provision class, though only 8 pupils are reported upon, with specific objectives targeted to groups or individuals.

Pupils A – D concentrated on developing phonic awareness using the inlay boards.

Pupil E concentrated on developing keyboard skills and improving motivation/behaviour

Pupils F – H concentrated on awareness of upper and lower case letters and typing speed.

The programmes were built into the enhanced provision curriculum within the ICT aspect. Pupils had 2 x 30 minutes per week with 2 adults supporting. Results of the programme appear in the table below

Results in black are baseline assessments in February 04, results in blue are final results 2nd July 04.

Pupil	Age	Reading Age Hertfordshire Reading Test February 04	Correct position of Keys (Picture inlay)	Correct position of Keys (Lower Case inlay)
A	8y 7m	5y 6m	4m 23 sec 2m 35sec	Incomplete 2m 19 sec
B	8y 0m	6y 3m	8m 55sec 3m 49sec	Incomplete 2m 21sec
C	8y 1m	5y 9m	5m 20sec 3m 09 sec	Incomplete 2m 30sec
D	7y 7m	6y 3m	4m 54sec 2m 11sec	Incomplete 1m 36sec
E	8y 8m	5y 6m	3m 06 sec 2m 27sec	Incomplete 1m 53sec

Pupil	Age	Reading Age Hertfordshire Reading Test. Feb 04	Lower case inlay	Upper case inlay	Timed passage
F	9y 3m	8y 6m	2m 31sec 2m 02sec	3m 19sec 1m 39sec	11m 13sec 7m 46sec
G	8y 8m	7y 6m	2m 18sec 1m 55sec	1m 48 sec 1m 35sec	6m 55sec 4m 59sec
H	8y 8m	7y 3m	2m 20sec 1m 36sec	1m 55sec 1m 43sec	10m 13sec 6m 00sec

8. Green Lane Community Special School

The school provides 117 places for pupils who have Statements of Special Educational Need aged 4 - 16. About 60% of pupils have moderate or severe learning difficulties. There are an increasing percentage of pupils who have challenging behaviours and or have autistic spectrum disorders. 30% of pupils are eligible for FSM.

Green Lane was one of the first schools (if not the first) in Warrington to pick up the Keyboard Crazy Game, initially they used the game in its original format of teaching letter recognition and keyboard awareness. Pupils competed against each other, as well as working in partnership to complete inlays and increase their awareness of the keyboard by making up their own mnemonics to remember where keys are situated.

As a consequence of the increased levels of motivation, self esteem and pupil performance, school has invested heavily in the game and it is planned into many lessons/subjects, apart from ICT, e.g. Literacy, Daily Mathematics, Science, MFL and PE to name but a few.

Staff involved with the game not only saw a marked increase in typing speed amongst the pupils but also noted that they were becoming increasingly self confident and their use of spoken language was improving as they talked to each other over games and tasks set. As a result school now uses the game across a range of subjects and many teachers will not plan activities without involving the game in some part of a lesson during the time tabled day.

The school has found the game to be a valuable vehicle for the delivery of MFL at Key Stage 3 and has removed the obstacles of reading and writing that can present difficulties to pupils when engaging with this subject. The lessons are predominately oral, with pupils using the letter tiles to spell words in French and then place them on the inlay keyboard etc.

Unfortunately due to technical (ICT) based issues we are unable to add Green Lane School results/examples of pupil work at the time off going to press. However pupils were given an activity based on keyboard familiarisation and keyboard skills. Pupils were asked to type a given piece of work in 15 minutes as quickly and as accurately as possible without any work on the Keyboard Crazy activities.

After 6 weeks of regular practice with a minimum of 3 sessions per week, following exercises and competitions around upper and lower case letters and left and right hand co ordination using the blue/grey inlay boards. Pupils were then given the same piece of work to type in 15 minutes. 3 distinct improvements were identified:

- Pupils were typing more lines of work than previously
- A greater awareness of accuracy around spelling and punctuation
- Observation of pupils showed they were more familiar with the layout of the keyboard and were using more fingers in left hand/right hand co ordination, where previously they had used the index finger of their preferred hand

One teacher has commented that she cannot plan her day without having Keyboard Crazy activities appear somewhere on the timetable as the pupils enjoy the activities so much “they continually pester me until I plan an activity for them”!

Concluding Remarks

The results clearly demonstrate a significant impact on the majority of the pupils involved in the pilot. Typing speeds have improved as well as pupil performance within literacy and numeracy, according to the focus of the various schools.

All schools certainly found that the game provided high levels of motivation for pupils and provided fun learning activities within both a collaborative and competitive environment. An often-used quote by teachers has been “the pupils have had so much fun they don’t realise how much learning they have done!” In particular the high levels of communication used by pupils when explaining activities etc both to each other and to staff has improved these skills and led to some generalisation of skills in other areas of the curriculum. When used effectively the game covers all areas of visual, auditory and kinaesthetic learning as well collaborative learning opportunities. The impact of the game can only be fully appreciated when seen in action and schools such as St Bridget’s and Green Lane would welcome visitors.

Finally, given the comments from HMI, Ofsted etc., of the need to improve typing skills and the focus of developing cross-curricular ICT practices across a range of schools and pupils. This game may well be one way forward in the teaching of such skills and enable pupils to concentrate on the tasks they have been set rather than on copy typing and “hunting for keys”.

Appendix 1

a in of					and is the					he it to					I look was				
all big me up					am come on we					are go said you					at like they				
away day <u>going</u> play went					can dog mum see yes					cat for my she					dad get no this				
<u>an</u> but got her not so with					as by had him off that					back came has his one then					be do have if or us				
about did here make new out their were who					been down just more now over them what will					call first little much old some there when your					could from made must our than want where				
after because can't girl home last man next push saw sister too water lived					again bed don't good house laugh many night pull school take took way					another boy dig half how live may once put seen these tree would					ball brother door help jump love name people ran should time very called				

Lead	/12	/27	/45	/70	/105	/158
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NATIONAL LITERACY STRATEGY
High Frequency Words

Name Date

a in of					and is the					he it to					I look was				
all big me up					am come on we					are go said you					at like they				
away day <u>going</u> play went					can dog mum see yes					cat for my she					dad get no this				
<u>an</u> but got her not so with					as by had him off that					back came has his one then					be do have if or us				
about did here make new out their were who					been down just more now over them what will					call first little much old some there when your					could from made must our than want where				
after because can't girl home last man next push saw sister too water lived					again bed don't good house laugh many night pull school take took way					another boy dig half how live may once put seen these tree would					ball brother door help jump love name people ran should time very called				

ipelt	/12	/27	/45	/70	/105	/158
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