



Aa
Bb
Cc
Dd
Ee
Ff
Gg
Hh
Ii
Jj
Kk
Ll
Mm
Nn
Oo
Pp
Qq
Rr
Ss
Tt
Uu
Vv
Ww
Xx
Yy
Zz

Text writing quality: Boys, girls, handwriting speed and spelling

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Writing

- Writing is important
- Assessment of academic performance across the world at most levels of education in most subjects depends on written texts.
- A high proportion of these texts are written under timed conditions.
- In the UK this begins at the age of 7 years and continues through to Masters.

- Performance in writing in England gives cause for concern.
- Last year only 67% of 11 year olds achieved level 4 in writing.

Girls: 75%

Boys: 60%

- An interpretation of these figures is that 40% of boys transferred to secondary school with weak writing skills which may not be sufficiently developed to meet the needs of the KS3 curriculum.
 - We know that boys' academic performance overall is weaker than girls.
- However, these figures also show us that there are a sizeable number of girls who also show weak writing performance.

- Writing is an activity that is highly demanding of cognitive resources.
 - The demands change relative to age and experience, but there are aspects of writing which will not become automated.
- We therefore need to identify those processes that can be automated and ensure that as far as possible they are.

The Simple View of Writing (Berninger et al., 2002)

Text generation
words, sentences, discourse

Working
memory

*Transcription handwriting,
keyboarding and spelling*

Executive functions
conscious attention, planning,
reviewing, revising,
strategies of self regulation

Transcription

- Formation of letters – handwriting and keyboarding
- Knowledge of word spellings.
- In the beginning these processes will be effortful and require a considerable amount of processing capacity.
- The young child has to focus on the movements in order to write each letter and to remember the correct sequence of the letters.

- In the learning phase just producing the letters means there are fewer cognitive resources available for the higher order components of writing.

- Generating ideas
- Planning
- Translating into language
- Choosing vocabulary
- Using appropriate syntax

- If we do not teach children to form their letters in as efficient a way as possible, their ability to produce texts may be compromised.
- We must therefore ensure they form the letters with economic movements so that there is an easy flow from left to right.
- They need to write as quickly as possible whilst retaining legibility.
- We also need to identify those children whose home language is written in a different script and in the reverse direction.

Why speed?

- Speed is an index of the degree to which a skill has become automated and therefore requires fewer cognitive resources.
- If handwriting is not automated, both quality as well as quantity of texts will be reduced.
 - Graham et al., 1997; Connelly & Hurst, 2001; Dockrell, Lindsey & Connelly (in press)
 - UK examination boards make special allowances for pupils who cannot write legibly or fast enough to do justice to their knowledge and abilities.

- The amount of variance in composition quality accounted for by handwriting fluency in the early stages of writing is 67% falling to 16% at the middle secondary school level.
- The effect of writing speed does not disappear
 - Speed still makes a significant contribution to the quality of texts when writing under time pressure even at degree level.

Christensen & Jones, 2000; Berninger, 1999; Connelly et al., 2005; Connelly & Hurst, 2001

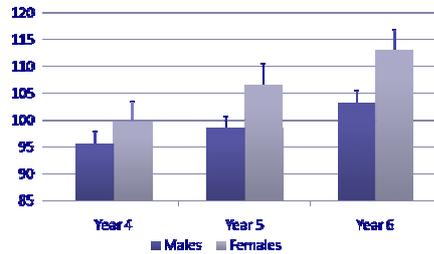
Current study

Boys, girls and writing

- A study of the handwriting speed, spelling ability and quality of texts in Y4 – Y6 children.
- 551 children: 224 boys and 227 girls.
- Handwriting speed
 - DASH Detailed Assessment of Speed of Handwriting
Barnett, Henderson, Scheib & Schulz (2007)
- Spelling
 - Single Word Spelling Test
Sacre and Masterson
- Text writing
 - Test of Written Language (TOWL)
(subscales 6, 7 & 8)

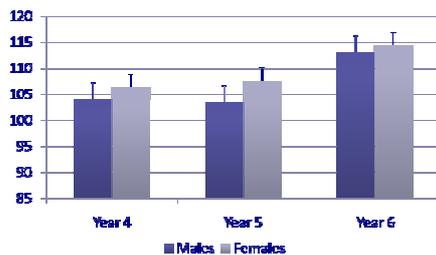
Handwriting speed

DASH Mean Standard Scores



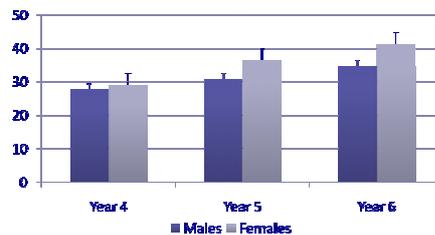
Spelling

Mean Single Word Spelling Test standard scores



Test of Written Language (TOWL)

Mean total raw scores for scales 6, 7, 8 (max = 68)



- The amount of variance in text writing quality accounted for by handwriting speed was 31%.
- The difference between girls and boys is reduced if one takes account of handwriting speed.

Handwriting policies and practices

Barnett, Stainthorp, Henderson & Scheib (2006)

- Survey of primary schools in the south east.
- All responding schools had a handwriting policy followed by the majority of teachers.
- 93 % taught a cursive style
 - National Curriculum (1988) requires that children be taught a cursive style by the end of KS2.
 - Adults who use a cursive style write 15 letters per minute faster than those using a print style.
(Stainthorp, 1990)

- 100% of the schools had pupils on roll for whom English was an additional language.
 - In 25% this was more than 20% of the pupils.
- $\frac{1}{3}$ of the teachers were not aware whether this meant the pupils came from homes where a script other than the Latin alphabet was used.
- Only 10% included some consideration of how to accommodate these children.

- Only 15% mentioned including support for developing speed in writing.
- Only 8% included teaching strategies for writing at speed.
 - In the other policies, speed meant teaching children to use abbreviations of words not helping them to increase speed of letter formation.

Initial teacher education in England tends not to cover how to teach handwriting.

This is a problem.

The data presented here suggest that attention to teaching handwriting speed in KS2 could have an impact on writing performance.

