Creating the DME-friendly School

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Patterns of SEN in DME

Identify the pattern of needs to make provision

1. **Asperger Syndrome (AS) and (Pragmatic Language Disorder)** 4: 1 Boys to Girls ??
2. **Attention Deficit Hyperactivity Disorder** ADHD 3:1
3. **Developmental Co ordination Difficulties DCD** and Handwriting difficulties- dysgraphia (3:1) ?
4. **Dyslexia**, Dysorthographia and Dyscalculia **(3:2) 4 to 1 ?**
5. **Social, Emotional and Behavioural Difficulties** 5:1, 3:1

COMORBIDITIES –CO-OCCURRENCES 30%

Disorders – Deficits – Developmental Delays?

6. **SLCN ?**

Free assessments for DME
A story writing approach

Tests – Checklists – Clinical pattern?

Invitation:

Select one Year cohort in your school and ask them to think of a subject they will write about for 10 minutes exactly without help. Do this in September early October 2018. (White card).

- Send the scripts to the LDRP for clinical analysis.
- Receive a report indicating those with DME difficulties
- Receive a summary of overall numbers and potential strategies that might be employed.
- Add any extra clinical detail for colleagues from the DME card for AS and ADHD

The numbers of gifted by IQ (Gagne, 2004)

But a high IQ is no guarantee of high achievement

180+ Profoundly gifted - 3 in a million, need web-based and college tutor support. 8.2 million pupils in UK schools = 25 (180+); 82 (165+): 927 (155+)

Level	Label	Ratio in popn.	IQ equivalents	SD	Eminence
5	Extremely	1:100,000	165	+ 4.43	0.07
4	**Exceptionally**	**1:10,000**	**155**	**+ 3.7**	**0.62**
3	Highly	1:1,000	145	+ 3.00	6.15
2	Moderately	1:100	135	+ 2.3	
1	Mildly	1:10	120	+ 1.3	

Tannenbaum's (1993) meta-analysis showed that to identify the gifted we have to include the top **15-20% by general** ability and then the top **15-20% in each of the different subjects. Add 10 IQ points** for those with dyslexia

Talented = 40-50%. Even then some of the most gifted will be missed!

Schools need a shadow G and T register or include top 20-30%. IQ is only an **estimate**, An IQ 115 could be 112-118, on group tests 110 to 120; Creativity needs an IQ of 120+; Chess masters 95!

DME context and numbers

Exceptional – gifted, talented, special need, disability

2E - Gifted and / or talented children with one SEND

DME - Gifted and / or talented with one or more special or additional educational need - SpLD.

Incidences of SpLD & SEBD (14% Rogers, 2016) 17 -30%???

Dyslexia 4-10%; DCD 5%; ADHD 3%-5%: ASD 1% -3%; SEBD 5% +

Related constructs:

•**Underachieving children often with one or more hidden SEN 10%-40%**

•**Co-occurrence** in SEN - 30% dyslexics with ADHD or ASD

•**Co-occurrence of Handwriting difficulties with dyslexia 50%, with DCD 90%; with ADHD 50-70%, with Aspergers 95%, with SEBD 50%**

Disadvantaged areas:

*** Dyslexia – 18.6%; HW diffs. 33%; Spelling diffs 30%; SEBD 30% (CUTs, 5%); UAch 40%.**

Alex the problem boy?

Alex (7 years) a bright boy, was placed in a class where the teaching methods were mundane and there was no differentiation or intellectual challenge. He quickly became bored and sought other forms of entertainment. These included annoying other pupils and upsetting the teacher through misbehaviour and clowning. Over time a reputation for being a behaviour problem developed and a career in disruption began ending in exclusion.

Assessment and identification

Informal – checklists / clinical patterns / class grids

good G.Ed teaching provision

Formal – triangulate IQ, SATs, subject grades, teacher assessments, checklists, tests, parents' views.

Through good G.Ed provision - 'engage brain' strategies e.g. problem-based learning, real world problems self-regulated learning, developmental differentiation

(Montgomery11996, 2008, 2009, 2015, Renzulli and Reis, 1998, 2008).

Clinical Patterns
Jess a gifted underachiever

The personal qualities of Jess in a similar situation to Alex meant that she went to considerable lengths to fit in and conform. In the early years it involved helping other children by passing the time helping them read and write. She became teacher's aide and teaching assistant. In the less flexible secondary school she turned to inner mental resources and daydreamed the days away. Fortunately her family promoted learning helping compensate to some degree for the poor schooling. However with lack of challenge and no failures to learn from she did not develop the advanced study skills needed to cope with university and dropped out after the first year.

Asperger Syndrome 1%

The Triad of Impairments (Wing 1981, 1996)

- **Social interaction** difficulty with social relationships ,e..g. appearing aloof and indifferent to other people, failure to follow social rules
- **Social communication** difficulty with verbal and non-verbal communication, e.g. not really understanding the meaning of gestures, facial expressions or tone of voice
- **Imagination** difficulty in the development of play and imagination, e.g. having a limited range of imaginative activities, possibly copied and pursued rigidly and repeatedly. Literal comprehension.

AS affects social interaction, social communication and imagination (Wing 1981, 1996, 2008). It is most frequently accompanied by a limited, narrow, **repetitive pattern of behaviour**. It is the problem behaviours and poor social skills that teachers find most difficult to manage but pragmatic language difficulty

can cause problems in English and history especially.

Asperger Syndrome (HFA)
Josh aged 7; Peter 18

Josh had eccentric habits that entertained his peers. He used invented words "Spemily pyloff" when fussed about a change in activities or to questions from the teacher, plus jaw and finger clicking and hand flapping. Sometimes he would perform a whole section of his favourite TV programme Fawlty Towers in the voice and mannerisms of Basil.

Telling him to stop had little effect. The teacher had to move in close, talk to him in a quiet and calming manner, show him something interesting to distract him - a new activity or object to switch off the other. (A picture cueing system was recommended)

Peter has poor social skills and literal comprehension. He finds it difficult to adapt to any new situation or change in routines but now it does not provoke 'meldowns'. He achieved 9 A stars, 2 A's and a B in GCSEs. In Year 12 he gained an A in Maths.. He finally went on a residential visit to one university. Buying tickets, journey planning accommodation and transport to and from the train were gone over in detail and executed with his tutor. **He had never travelled on his own or been away from home** – life skills

With intensive training he filled in the UCAS form. He accepted a place at a campus university. His mentor arranged with Student Services to offer him support as soon as he arrived and that his new maths tutor should be involved.

Special features in AS

- The boy ‘Nerd’ and computer ‘Geek’
- The girl ??? (Gould et al, 2015)
- The ‘goldfish’ syndrome
- Asynchronous development
- Low social interaction skills
- Poor life skills
- Visualiser attributes - parts versus wholes
- Literal comprehension – imagine? infer feelings?
- No jokes please or fables
- Over-sensitivities to light or sounds

Specialist Interventions in AS

- **Applied Behavioural Analysis inc. Time out**
- **Life skills training**
- **Social skills training**
- **Augmented visual communication**
- **Theory of mind and Social stories**
- **Curriculum difficulties – history and English**
- **Diets – casein and gluten removal**

Lack of Theory of Mind

(Baron-Cohen and Frith, 1998)

'Mind blindness' example: *Two people stop and look in a shop window, one points at something in it, the other nods and they go into the shop. Shortly after, one of them comes out and looks in the window again and goes back inside the shop. Then they both come out again one with a plastic bag of something.*

•The normal onlooker **infers** that the two people are out shopping, see something one of them might **want** in the window and go in to buy it. The shop assistant **wishes** to know where in the window it is and they cannot **remember** exactly and so one comes out to check and then goes back inside to tell them. We **believe** the object is bought and put in the plastic back and they leave.

•The person with ASD will see people running in and out of a door and have no idea why or what they are doing.

The results of lack of theory of mind

- They do not perceive the motives of others and appear naïve and immature. They may buy sweets or steal them to give others to make friends.
- In a gang they may steal to order to remain a member and be unaware of the consequences.
- They may make offensive and inappropriate remarks about a teacher's or TA's appearance, saying what they see.
- They are particularly vulnerable to bullying in the playground and unsupervised areas. Others 'set them up' to misbehave in class
- They can easily become prey to sexual grooming
- Problem behaviours and petty thefts can set them upon a criminal career in systems that do not understand their problems especially the 'melt-downs'
- Most will need some form of supervision that keeps them safe lifelong.

Girls with AS may go unidentified Gould et al, 2015)

Diagnosis is handicapped by prevailing stereotypes, for example the ‘geek’ or ‘nerd’ addicted to computer games, football facts and so on are all associated with boys’ behaviours.

Girls with total commitment to celebrity, shopping, horses, make-up, or soap operas on TV may be exhibiting their form of Asperger rituals and routines and need further investigation and possible diagnosis and support.

Boys are also much more likely to ‘Act out’ and engage in overt anti-social behaviours whereas girls are more likely to ‘Act in’ and be more passive.

Girls with AS learn to mimic social interactions and communications more **easily than boys and learn to act in social settings. Diagnosticians see someone who appears capable and who has reciprocal conversation, makes eye contact and uses appropriate affect and gestures. They miss the Aspergers.**

ADHD 3%

‘Fidgety Phil’ (Hoffman, 1844)

‘Let me see if Philip can
Be a little gentleman;
Let me see if he is able
To sit still for once at table’:
Thus Papa bade Philip behave
And Mamma looked very grave,
But fidgety Phil,
He won’t sit still;
He wriggles and giggles,
And then, I declare
Swings backwards and forwards,
And tilts up his chair,
‚Just like any rocking-horse

1. ADHD - Predominantly Combined type

2. ADHD - Predominantly Inattentive group (*6 of 9 symptoms of inattention must be present for over 6 months*

3. ADHD - Predominately Hyperactive - Impulsive type (6 *of 9 symptoms of Impulsivity must be present for over 6 months.*

Poppy aged 16

Poppy had difficulties throughout her school years but was gifted in Art gaining an A at GCSE. She had to be withdrawn from most other subjects because of her poor behaviour, lack of attention and concentration. This never applied to artwork.*

Her behaviour in both primary and secondary school was challenging. She arrived late without necessary equipment, leaving her materials strewn across the desk at the end of lessons. She would sing and doodle on her work and that of other pupils much to the exasperation of all concerned. During revision study periods for the GCSEs she was found running noisily round the school singing and dancing.

She was frequently defiant of authority and the schools did not know how to manage her without creating a further loss in her already low self-esteem. She had never had a diagnosis of her special need and left school after taking GCSEs.

Matthew aged 6 years 9 months

He is rarely at his desk working. When he is, he works standing up. He is constantly lolling about or rolling on the mat. When told to sit up straight, the next instant he will be lying down again. He cannot keep quiet in any discussion and constantly blurts out answers.

He continues a conversation with a friend even when the teacher directly asks him to stop. He has an extremely short attention span and seems unable to give his attention long enough to grasp something. Thus he has found it very difficult to learn sound-symbol correspondence and a sight vocabulary. As yet he cannot read unknown words or use phonic skills.

He is often the ringleader in scuffles with his friends. He can however sustain an imaginary game for an extraordinary long time when playing with his toy figures. At home his parents report that he is difficult to manage. He responds well for short periods to rewards and stickers for good effort but saying. 'If you don't behave, I will -- (send a note home)' does not work.

Specialist Interventions in ADHD

- Medical –Ritalin therapy; diet allergies
- Psychological –ABA, ‘Junglememory’, CBT, Time out, Behaviour contract
- Educational – positive behaviour management, task analysis, activity breaks and relaxation therapy, ‘cut the loop’, Circle Time, Cognitive control – pause-think-act, a walk in the park.
- Back up – observer support, video feedback

Developmental co ordination difficulties (dyspraxia) DCD 5%

Developmental Coordination Disorders are problems in the development and use of motor skills (APA 1994). Incidence 5%, 1% severe. Often bullied.

Characteristics:

a) Fine motor skills difficulties – drawing, **handwriting**, sewing, buttoning, bead threading etc.

b) Gross motor skills difficulties – running, walking, swimming etc.

c) Visuo-motor skills difficulties – ball skills, jigsaws, knot tying, orientation and spatial difficulties

Specialist Interventions in DCD

- Dyskinaesthetic intervention (Laszlo, 1988)
- Reflex developmental patterning (Blythe, 1979)
- HANDLE (Bluestone, 2000)
- ‘Brain gym’ (Dennisons, 1998)
- Motorway to ABC (Upton et al, 2008)

Motorway to ABC Attention-balance-coordination

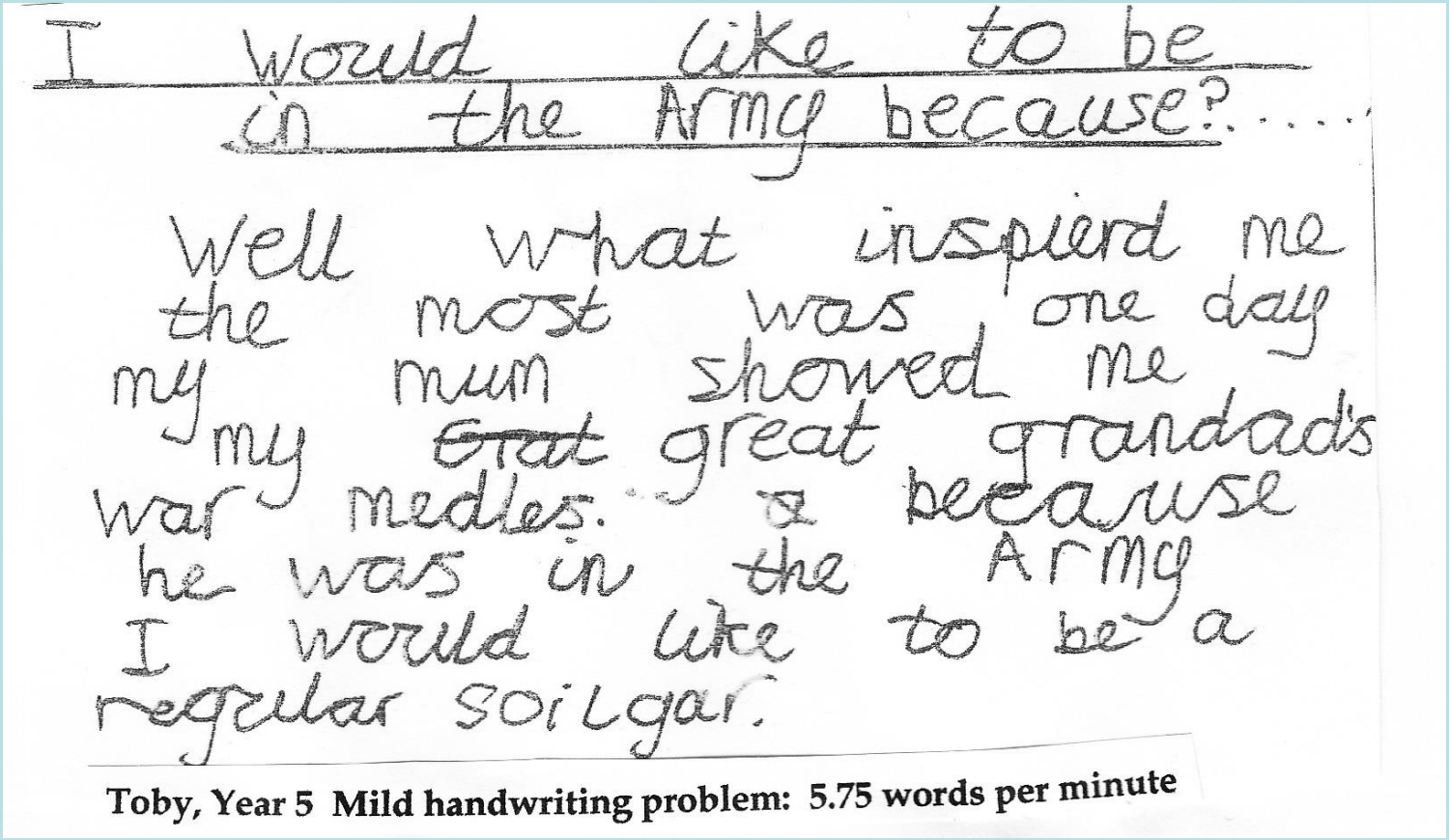
End of Yr 2 children undertake an ABC PE lesson. The teachers observe and identify those with problems who might benefit from the programme:-

- difficulties in maintaining a still posture
- poor sense of rhythm
- difficulties with spatial awareness
- problems carrying out a sequence of movements
- poor balance
- difficulties controlling direction
- difficulties controlling force

Groups of 4 children over 6 weeks with preferably 2 trained TAs

The routine begins with walking along the corridor, settling in the room, dressing and undressing and listening. Gym shoes are worn or bare feet, sweatshirts and ties are removed.
Sessions 'Warm-up' activity and the series begins with 'body awareness' training. The creativity of the TAs is encouraged so that new games based on old themes are brought in and adapted so that the children will enjoy what they do.

Handwriting Difficulties 33%



Toby, Year 5 Mild handwriting problem: 5.75 words per minute

Dysgraphia-handwriting difficulties ‘The silent disability in plain sight’

Dysgraphia 5% - a difficulty in developing and learning fine motor skills and the precision needed for HW- a coordination problem. It results from:

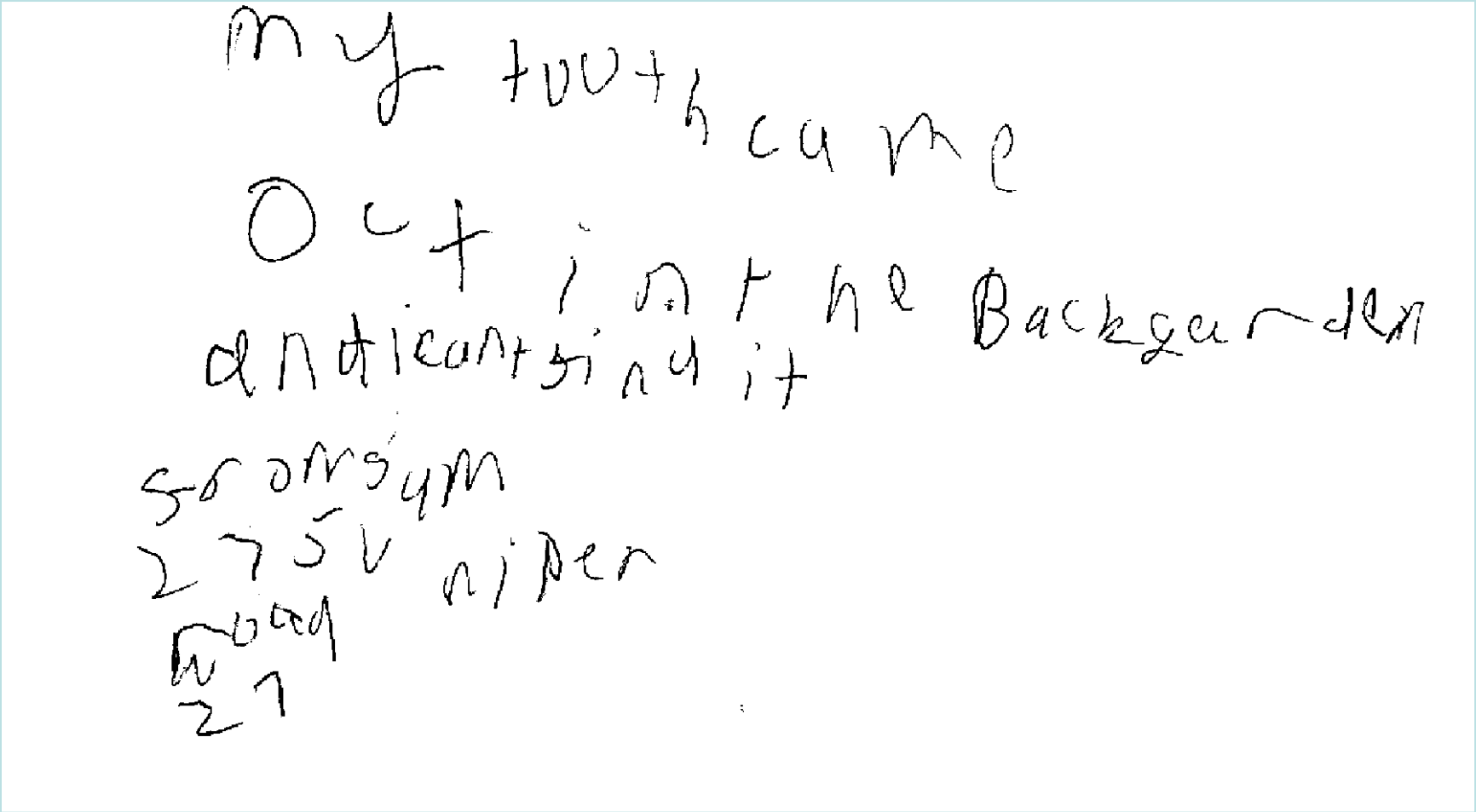
- Poor muscle tone and control,
- General weakness in hand and finger coordination
- Bendy joints
- 1% have severe difficulties and need a scribe or a voice recognition support
- Boys are more vulnerable to this than girls 3:1 ratio

But 33% of all children had some difficulties with HW (2008, 2017) e.g.

7 HW Problems: in speed, formation, style, legibility, fluency, penhold, coordination, and they can depress the learning of spelling and essay writing.

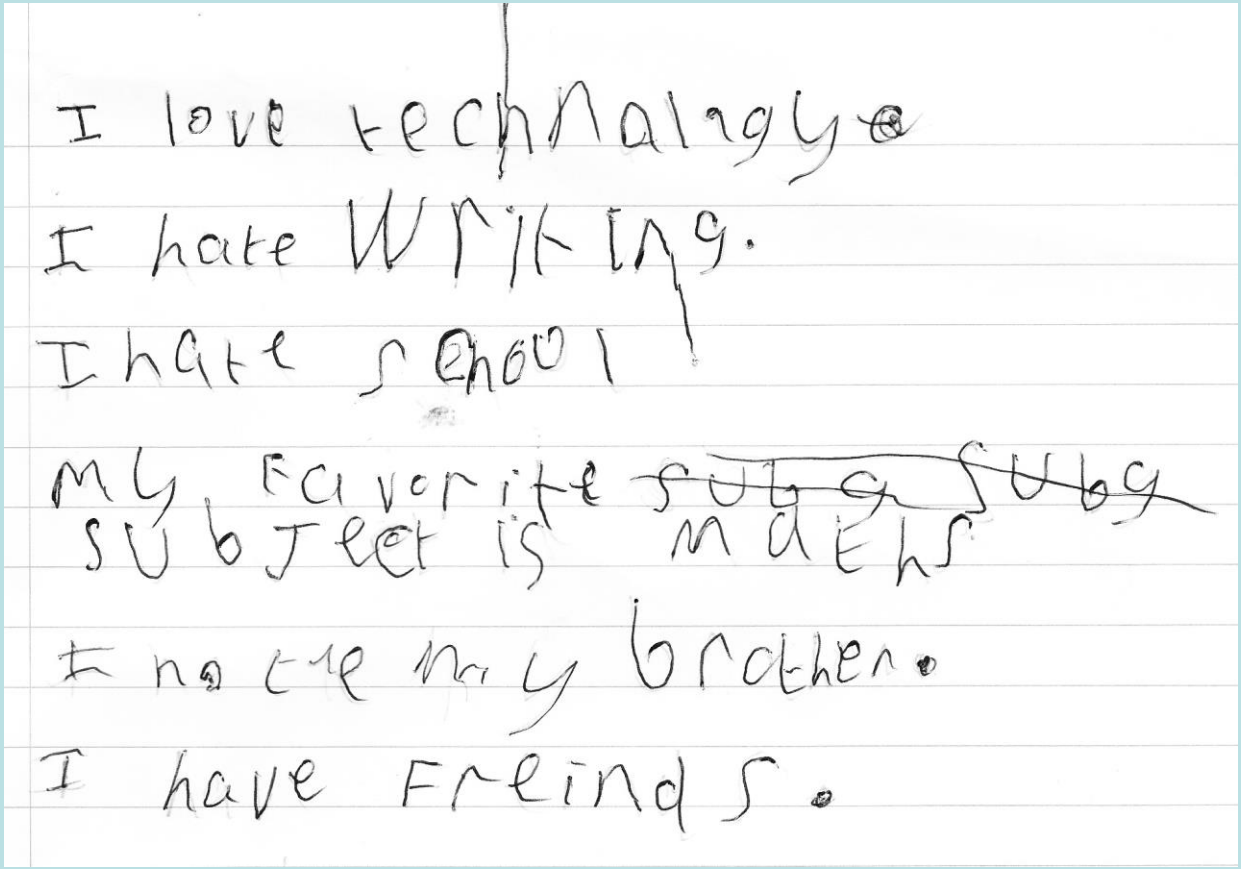
Average Speed: Rough guide 1 word per minute more than CA e.g. at 7 years = 8wpm, 12y =13 wpm. **A speed of 15 wpm needed in secondary schools to meet the curriculum requirements (Roaf, 1998) otherwise failure in all subjects led to UAch. Mean speed of year 7s = 12.4 w.p.m. more advantaged schools 13.2. Girls more skilled.**

Dysgraphic Age 7 years



Lines help - 6 year old

Lack of teaching - problems in form, style and fluency



Another road less travelled!
Cursive

- **Marin and La Voie et al (2012)** showed that those taught

cursive from the outset made more progress in speedy writing of words followed by semi-joined, slowest were those taught print.

They advocated teaching cursive from the outset as switching was too hard for most children.

- **Overvelde and Hustjin (2012)** specifically recommend **not**

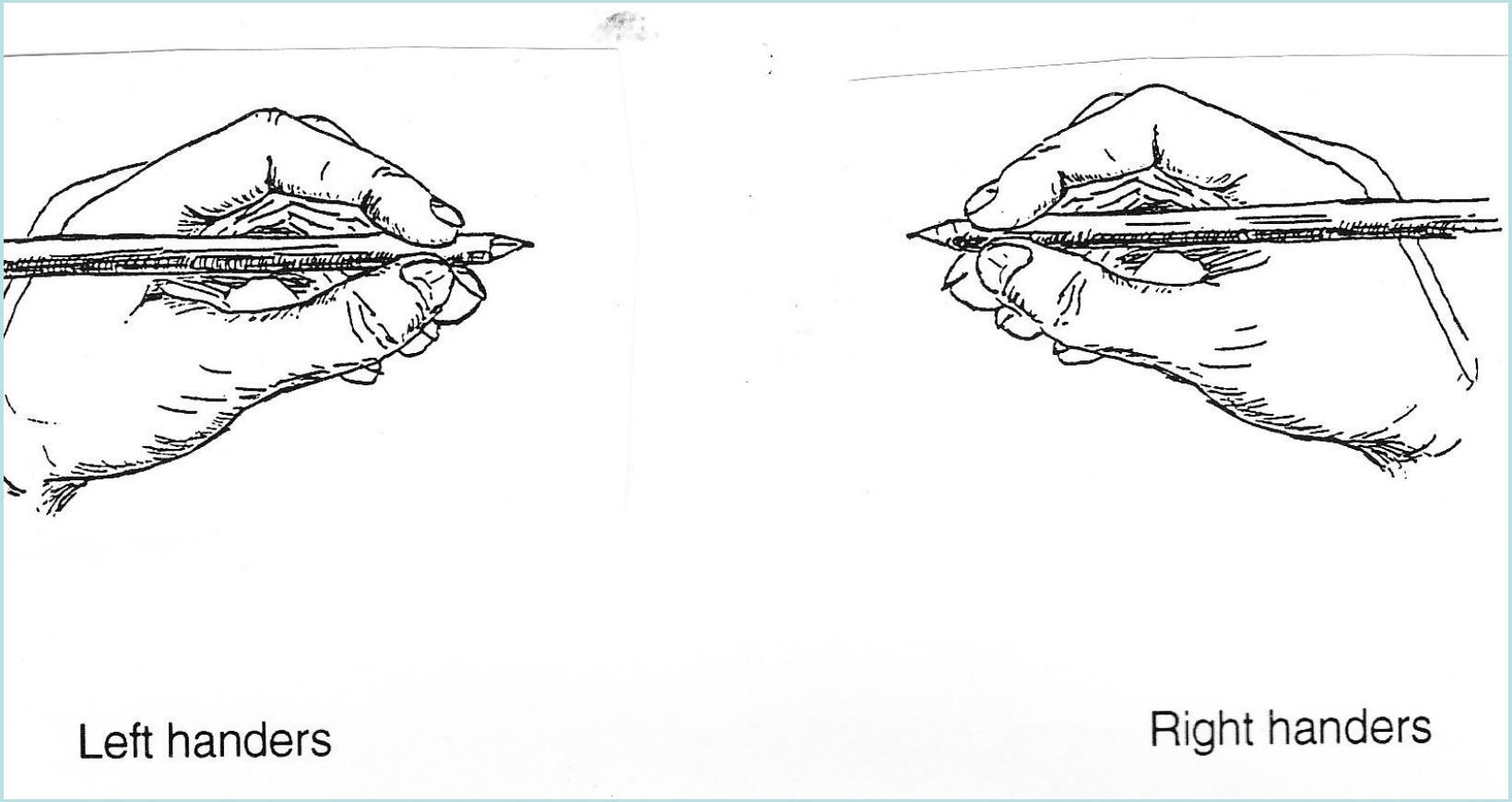
allowing children to trace letters because doing so delayed memorisation of letter-forms.

Not tracing or copying runs against the custom and practice in most English Reception classrooms. It would appear that this tracing practice has been wrong for over 80 years

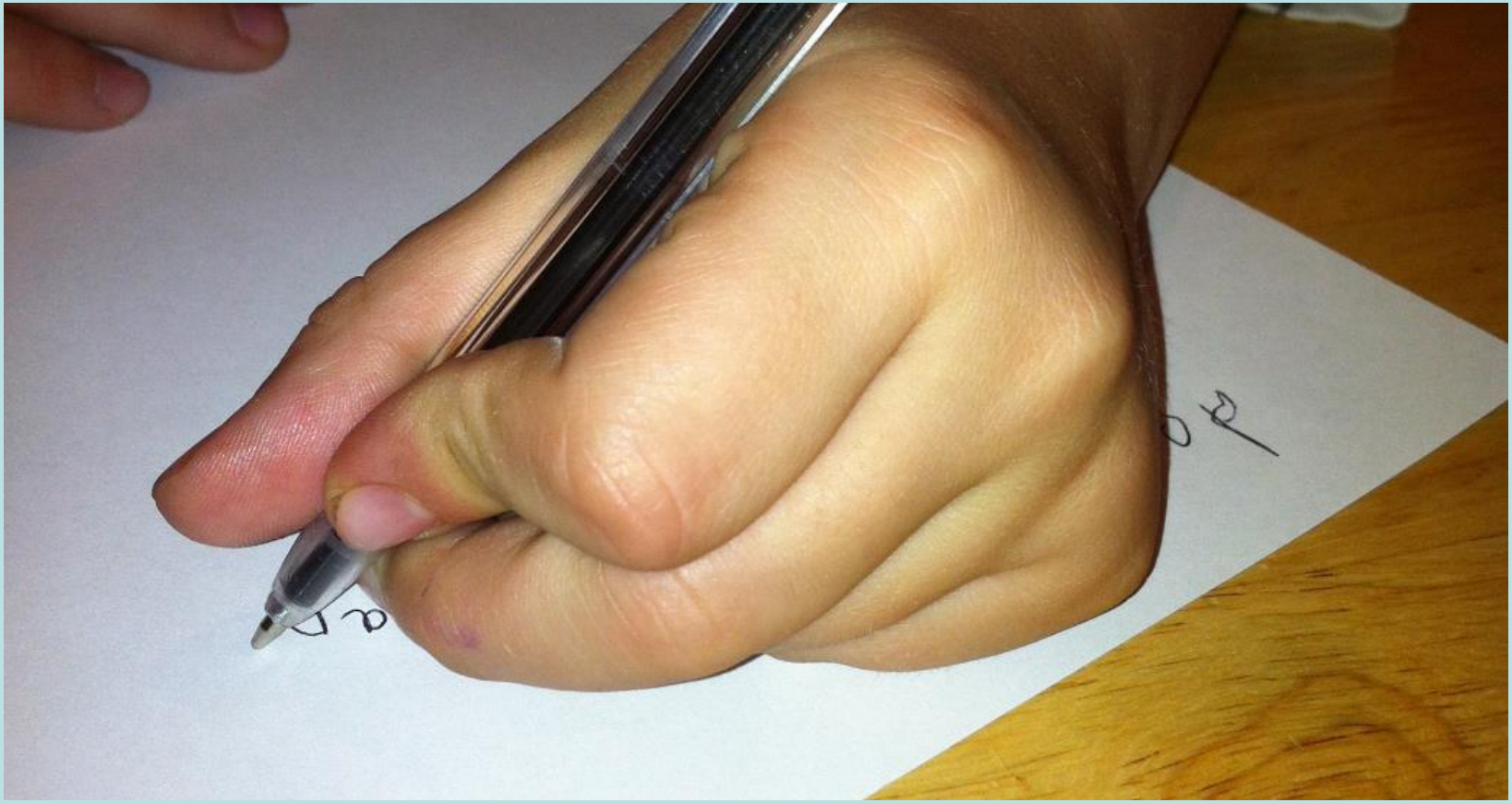
Cursive was widely taught in the UK 1900-1940s.

45 of the United States of America have stopped teaching handwriting

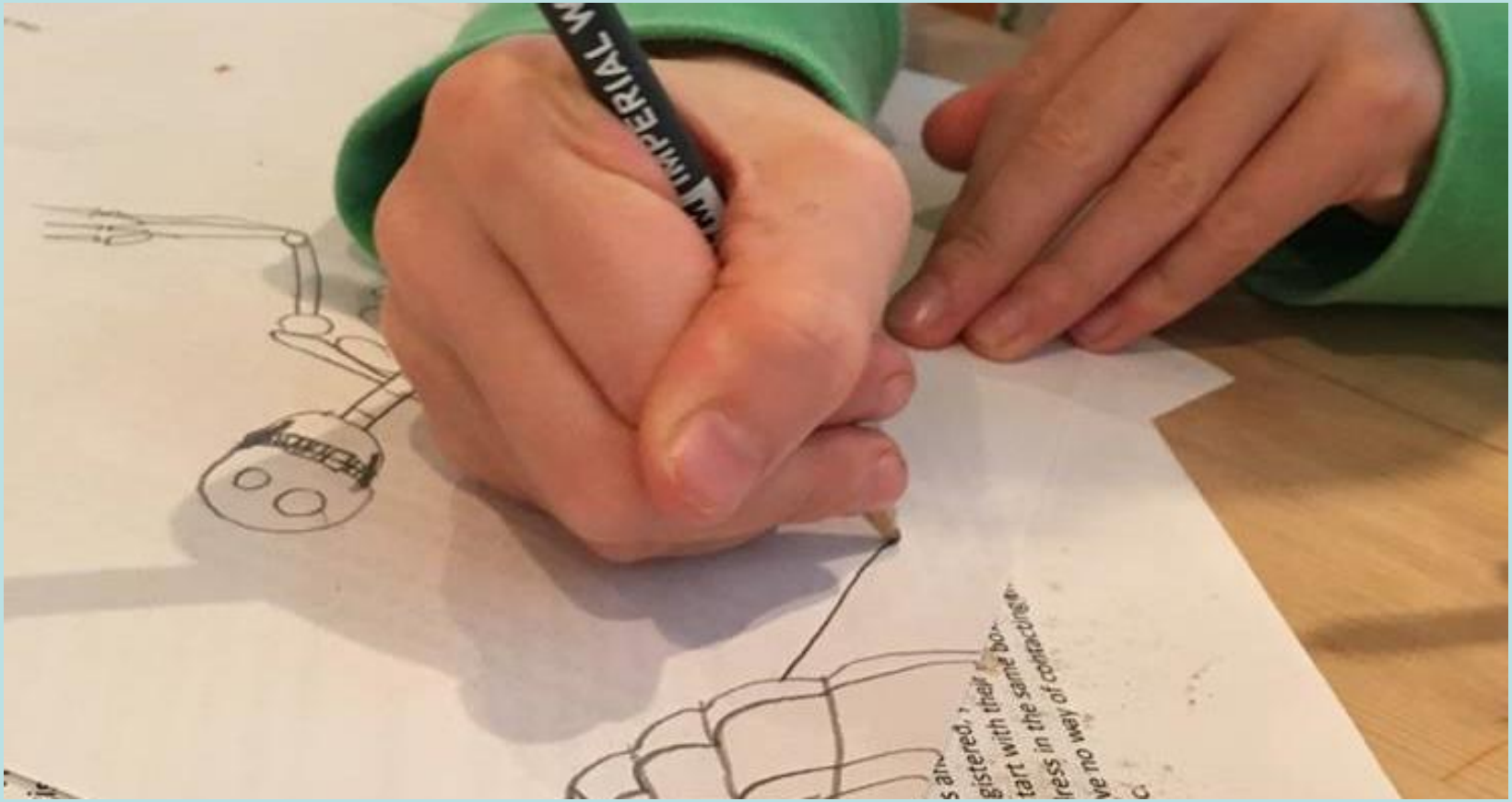
Penhold is important
Flexible tripod grip



Age 7 years



7 years 10 months ‘thumb over



Why Cursive from the outset?

* Aids left to right movement through words across the page.
* Eliminates reversals and inversions of letters.
* Eliminates the need to relearn a whole new set of motor programmes
* Induces fluency which enables greater speed without loss of legibility.
* The motor programmes for spelling words and syllables are stored together
* Spaces between letters and between words is orderly and automatic- \o’ size
* All words and single letters begin in the same place, on the line
* All letters are made with a continuous line from one starting point, not 4 different ones, a ‘ghost’ lead-in line can be used
* A more efficient, fluent and personal style can be developed reinforcing multisensory learning linking spelling, reading, and speaking.

•Pupils with mild handwriting difficulties experience less pain and difficulty.

•1% with severe difficulties need scribe, siri, or laptops from the beginning

Dyslexia Spectrum Difficulties

- Dyslexia - reading AND spelling problems, 4-10%
- Dysorthographia - spelling only problems, 18-32 %
- Dyscalculia – reading and/or number problems, (6%)?

The Three Educational Faces of Dyslexia:

Logographic,	**Alphabetic,**	**Orthographic**
4-6 years	7-11 years	11 years to adulthood

Add ons - dysgraphia - handwriting difficulties, 12-30%

Add ons - speech and/or language difficulties, 3%

Classic gifted dyslexic case

James is 6.5 years old with an IQ of 147 on WISC. He has failed to learn to read or write and does not know any of the sounds or names of the alphabet. He can read some familiar common words and appears to know most of his reading books off by heart.

The school has given him extra phonics and some one-on-one tuition in phonological skills. Because his parents are informed about dyslexia and affluent they have had him tested privately and this has enabled him to be more rapidly referred to the specialist tuition centre. The school has supported this because James was becoming very disruptive.

An example of dysorthographia

Annette 5 years 11 months for comparison – gifted

'Wild animals often live in woodland, the fox, the squirrel, the woodmouse and the shrew, the largest of these animals is the fox, the fox is carniverous which means he eats meat. The shrew is the smallest of the animals mentioned, and he is about two inches long at the most. The pigmy shrew is about one and a half centimetres. The squirrel is often a pest because he will dig -- - -

Maria aged 5 years 10 months – bilingual in German and English

'I wnt to the Titic Esbtnn I swo srm thes fom th Titic And srm thes war reil' (I went to the Titanic Exhibition, I saw some things from the Titanic

and some of these were real) She taught herself to read aged 4.

The Logographic Face of Dyslexia

Has two stages in normal development (Gentry 1981):-

- **Precommunicative scribble**
- **Prephonetic stage**. This is the critical borderline when **they use 'phones'** e.g. 'w' for 'was' or 'wt' for 'went'

Dyslexics fail at this point - criterion referenced. Why wait 3 years to prove this?

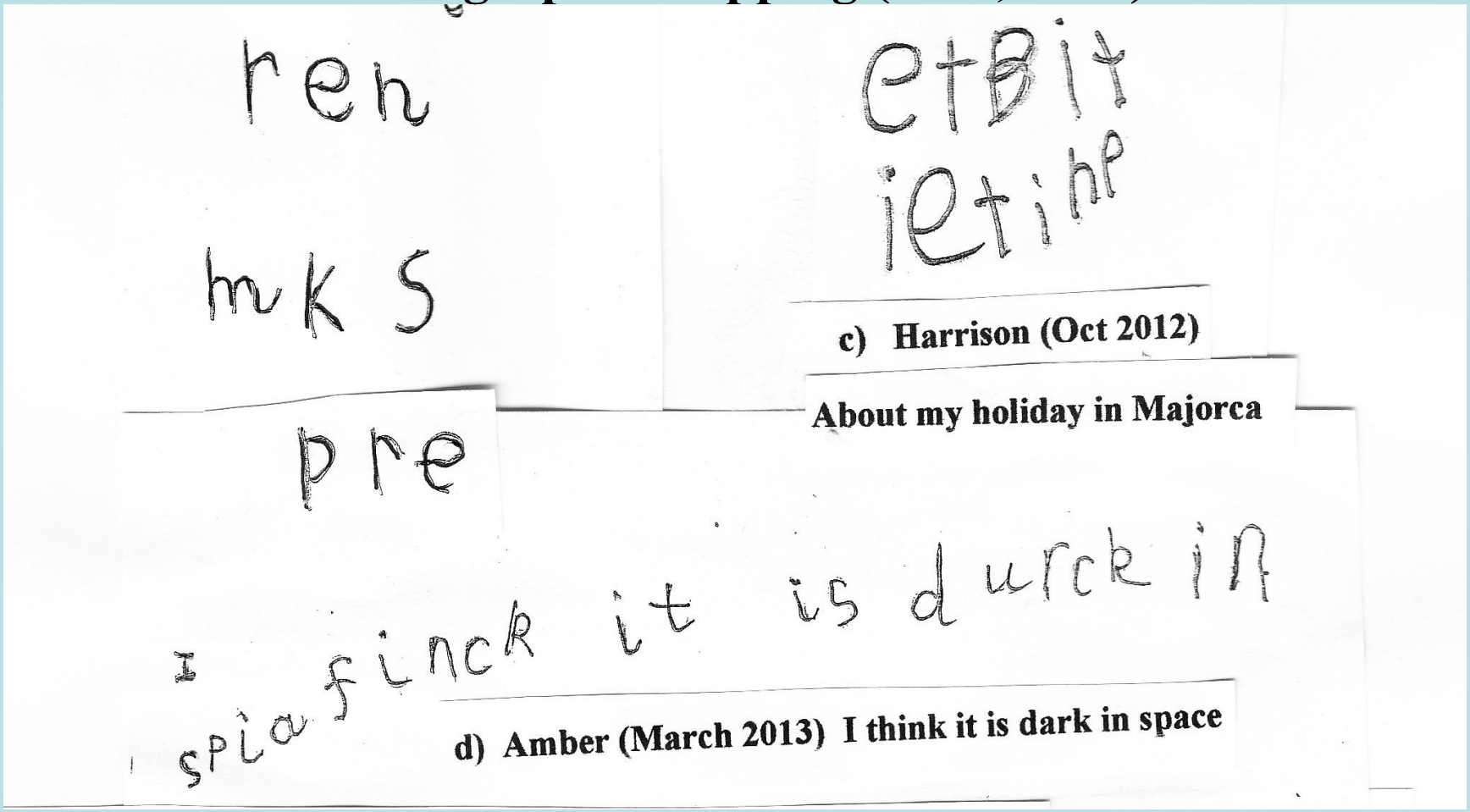
The discrepancy formula is irrelevant. Look at what they write.

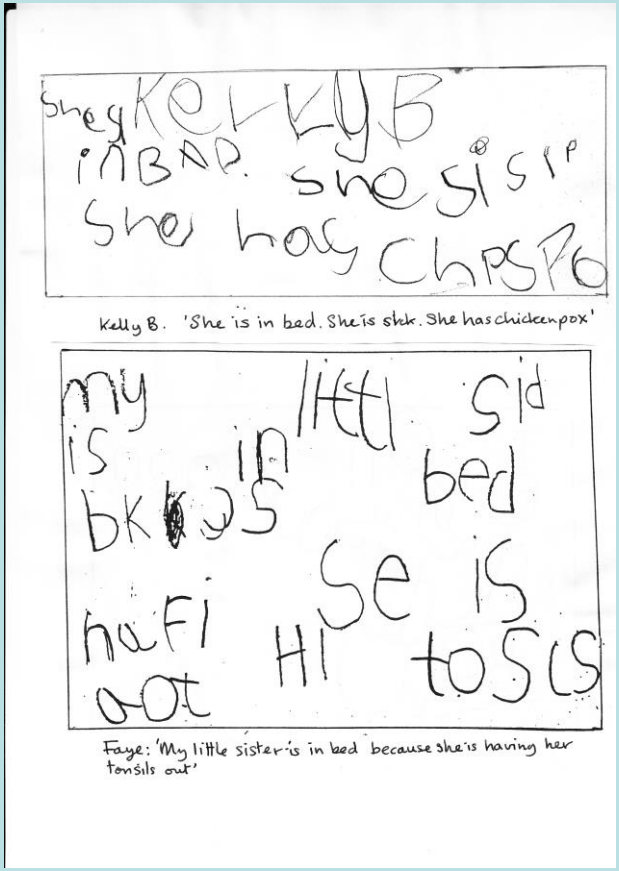
'*The errors children make when they write are neither random nor thoughtless- examined diagnostically they reveal systematic application of the child's level of understanding'.*

Rosencrans 1998.

Have they cracked the code?

Orthographic mapping (Ehri, 2018)

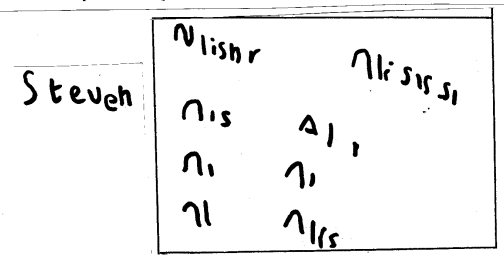




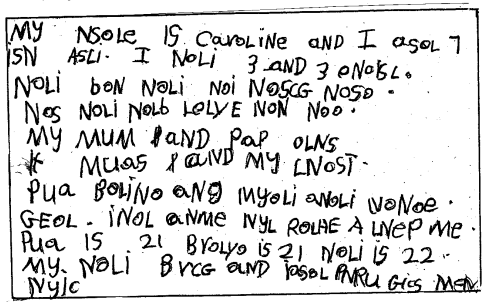
2 bright non dyslexic five year olds

After one month in Reception

Figure 3. 1 To show the spelling of dyslexics before they have 'cracked the alphabetic code' and have problems with phonics



Steven, 6 years 6 months



Caroline, 7 years

'My name is Caroline and I am 7 years old. i have 3 brothers and 3 sisters. Some of them live at home and some of them do not. My mum and dad live at home and so do my goldfish. Paul, Breda and Mark still live at home. They are a lot older than me. Paul is 21, Breda is 21 and Mark is 22. My other

Dyslexics aged 6.5 and 7 years

Both have had extra remedial reading support from their schools for 6 months and 18 months.

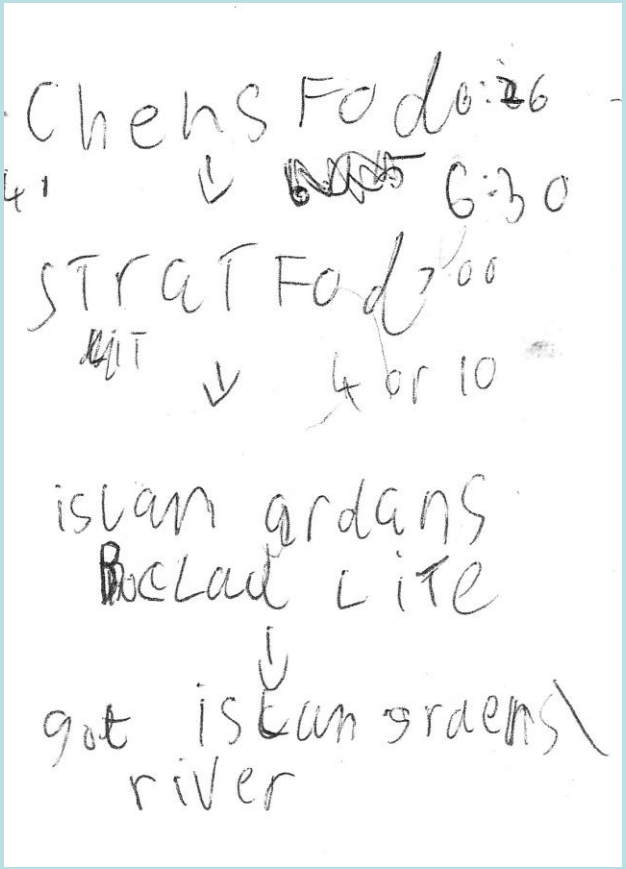
Story writing project in Reception 30% uplift in disadvantaged groups and 10 % in advantaged groups

Key Stage 1 SATs results Level 2 and above for the project schools, Yr 2

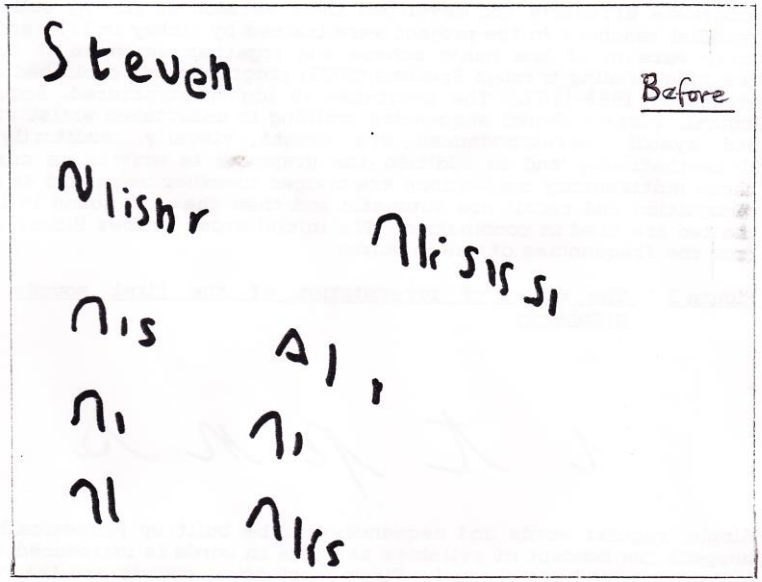
	2011	2012	2013	2014	2014		
					Reading	Writing	Maths
School A	35%	47%	48%	(78%)	85%	80%	66%
School B	37%	37%	50%	(66%)	76%	78%	46%
School C	77%	87%	88%	(96%)	95%	98%	96%

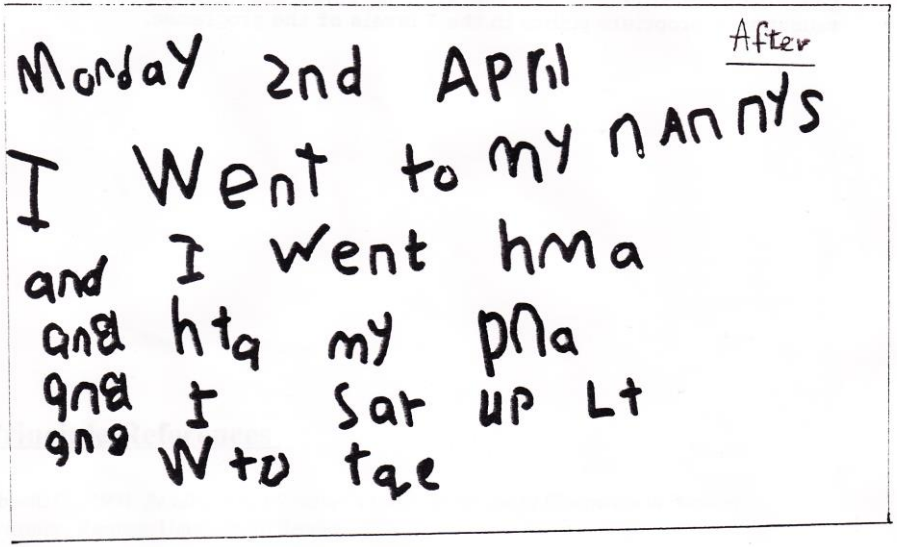
Why wait until they are 3 time failures at 7 or 8 years old ???

James, aged 18 Dyslexic. List for his journey from Chelmsford to Island Gardens



Progress made by Steven after six TRTS 20 minute lessons (the school would not allow him to learn cursive)





Specialist Alphabetic Level Interventions use Hickey (1991) or TRTS (1994)

APSL	Read	Spell	Non APSL	Read	Spell	Researcher
•A to O	1.93	1.95		0.53	0.32	Hornsby et al 1990
•N=107				N=107 (Teachers' phonics		
•TRTS	2.45	2.01		1.06	0.16	Montgomery 1997a
•N=38				N=15 (Eclectic mix by teacher)		
•(H & A to O)	1.21	0.96		0.69	0.65	Ridehalgh 1999
•N=50				N=50 (SME)		
			+			
•TRTS	3.31	1.85		2.20	1.14	Webb 2000
•N=12				N=12 (SME/TRTS)		
•TRTS N=12	4.04	3.00		(no control group)		Gabor, 2007
•						
•A to O	2.40	2.40		Same group, no		Pawley 2007
•N=10				progress in previous year		

Orthographic Level Dyslexic

Alex 13 yrs has had 2y remedial help

He eat him, now I'm no exspert but anemals do behve lick that, and he did the same to the others but the had a difrent larws and the Pleos cort him eath is the most stangest plac
Jonow Yors fathly hoblar

Dear Hoblar (5 mini sessions later)

I fanck you for your letter, I've looked up your animal consirns and animals on earth have a good reputasn like Robin Hood, I have beny watching a lat of films and cartoons and I disagree with you. For example police dog's save lives and guide dog's help blind people. I'll meet you at the space-

Cognitive Process Strategies CPS for Spelling (Montgomery, 2007 ch 5)

Lower order strategies

- Articulation
- Over articulation
- Cue articulation
- Syllabification
- Phonics (synthetic)

See CPSS 'Green card'

Higher order strategies

- Origin
- Rule
- Linguistics
- Family/baseword
- Meaning
- Analogy
- Funnies

CPSS corrects lexicon and motor memory
15 rules can help spell 20,000 words

4 SUFFIXING RULES: ADD, DOUBLE, DROP, CHANGE

Double: Hop, hop – p -ing, -ed, -er (ban, bed, bid, top, run)

Drop: Hope, hop – ing. -ed, -er (rave, time, fume)

Add: steam –ed, rank –ed **Change:** Say-ed, sai 'd; Pay –ed, pai 'd

Meaning and Origin strategies 'OPPERTUNITY'

- Look up spelling in the dictionary
- Put a ring round the area of error
- Look up the meaning and origin of the word

OP (prefix) - PORT (haven or opening, port) - UNITY (one)

Write out the correct spelling 3 times writing over the area of error in full cursive

5. SEBD 5 to 30 %

Social, Emotional and Behavioural Difficulties

Gifted children are no more likely than others to develop SEBD except those that derive from asynchronicities, perfectionism; failure and boredom. They too 'Act in' or 'Act out' their stresses.

•SEBD in all its forms may be accompanied by a high level of ability but with poor communication skills especially in writing.

•Misbehaviour through boredom can quickly be labelled as 'disruptive' and lead to exclusions.

•10% of the special school SEBD population are more able learners (Cole et al , 1998).

•55% with severe SEBD also had DCD (Iverson et al, 2006)

•Disorganised families and inconsistent rearing techniques can lead to SEBD in children of all abilities. Oxytocin levels and brain development are affected in crucial self control and empathy areas.

SEBD (BESD DfE) 5 to 30%

- **Social difficulties** – poor social and interaction skills, difficulty in team work
- **Behavioural difficulties** – Acting out: aggressive, disruptive, attention seeking
- **Emotional difficulties** – Acting in: passive, dreamy, anxious, nervous, school and other phobias, depression
- **Communication difficulties** – poor vocabulary and comprehension skills, literal. Social and cultural disadvantage; second language

General Educational Provision for DME (Montgomery, 2003, 2016)

- The cognitive curriculum ***
- The talking curriculum **
- The recording curriculum *
- Formative as well as summative assessments (AfL – Assessment for Learning)
- Positive behaviour management Blie card
- **Collect the DME Friendly School card**

Montgomery, D. 2015 *Teaching Gifted Children with SEN: Supporting Dual and Multiple Exceptionality* London: Routledge