

Intensive Support For Students with Dyslexia

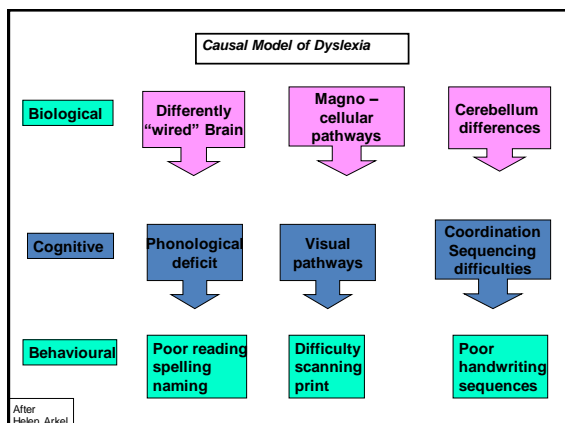


My memory is like a net!

New Paradigms For Progress

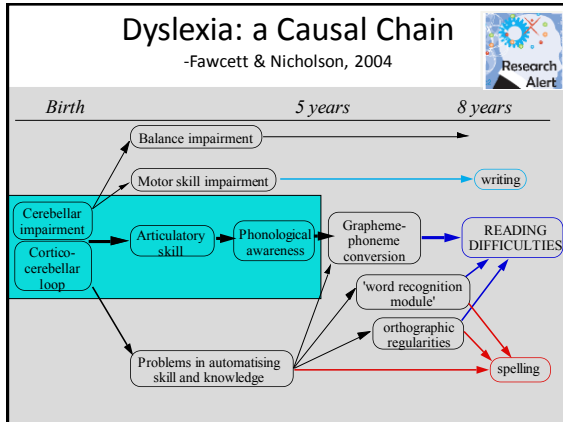
Proud to learn differently

DYSLEXIA



Causal Model of Dyslexia

1. Biological
 - Genetic brain abnormality?
2. Cognitive
 - Phonological deficit?
3. Behavioural
 - Poor memory/phonological awareness
 - 1+3 are "traditional views" of dyslexia



Readers relying on Non-lexical (rule based) route show:	Readers relying on Lexical (non-rule based) route show:	Readers with difficulty in both routes show:
Accurate reading – regular words	Accurate reading of previously learned words – regular and exception	Inaccurate reading of regular, exception + non words
Poor reading – exception words	No advantage for regular over exception	No discernible differences in lexical/non lexical strengths
Good non-word reading Regularisation errors – exception words	Poor non word reading	Exception word and non word reading equally problematic
	Orthographically similar errors to both real and non words	
Pattern typical of <i>“surface dyslexia”</i>	Pattern typical of <i>“phonological dyslexia”</i>	Pattern typical of <i>“mixed dyslexia”</i>

Dys-phonics/visual preference	Mixed preferences	Dys-eidetic/auditory preference
Visual strategies Visual programmes Animations	Combination approaches Letter names+sounds to mastery Phonic drill, flash cards	Auditory strategies Letter names and sounds to mastery Phonic drills and skills
Flash card words and pictures Multi sensory opportunities	Multi sensory opportunities Coloured paper + overlays	Hands on word building + sound buttons Coloured vowels Syllabification
Extra lessons Contextualised text (TCP-QR) Syllabification using colour	Extra lessons Paired reading Syllabification – tearing words	Paired reading Peer tutoring Lip reading Contextualised text
Repetition and over learning Grapheme/phoneme correspondence to automaticity Plastic letters, sand tray	Contextualised text ICT “read back” Visual and auditory stimuli	Multi sensory opportunities Repetition and over learning for automaticity Extra lessons
Paired reading Peer tutoring Syllabification – tearing words	Enlarged print “Friendly fonts” Sand paper letters	Coloured paper. Overlays etc “Talking computers” Hands on syllabification

Looking for common approaches?

- Grapheme/ phoneme correspondence to mastery. But.....
- Multi sensory
- Contextualised text (TCP-QR etc)
- Extra lessons
- Hands on syllabification
- Paired reading and peer tutoring
- Enlarged “friendly” font

<http://gizmodo.com/5818440/a-typeface-for-dyslexic-readers>

The “cross-wired brain”

- “Left” for language
- Control of right hand usually dominant for wiring
- Brain is cross wired to give us better control of right side
- Also same side connections and left/right, right left connections
- Cross wiring via corpus callosum

Activity Time

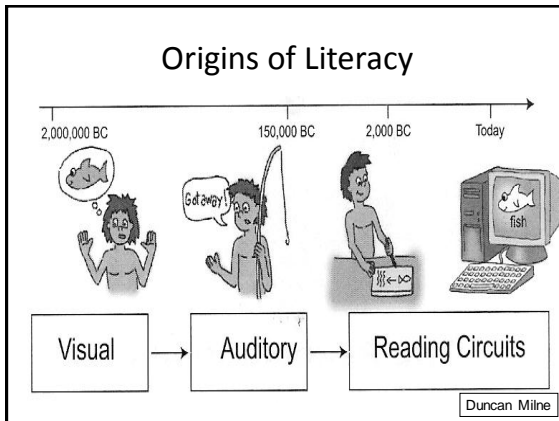
1. How is your wiring?

2. Which is your dominant eye?

The “Self teaching brain”

- Specialist modules communicate with each other to learn a word
- Brain uses this word to read other words
- Learns to ask questions:
 - Does it look right?
 - “serial probability”?

Origins of Literacy



Symmetrical brains

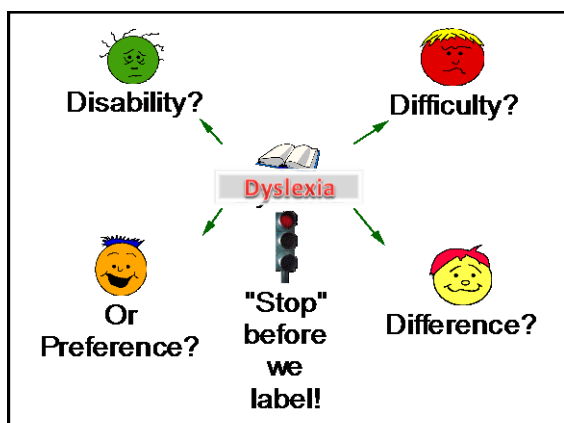
- Most brains are left side dominant – but not all
- Some are more balanced – which can make it easier to think creatively, but harder to learn to read



"It might be Dyslexia" notice and adjust Clues

- Reading, spelling & writing difficulties
- Problems learning and matching letters and sounds
- Problems with rhyme and alliteration
- Difficulties with other subjects
- Organising and sequencing difficulties
- Poor short term memory
- Slow speed of processing
- Poor information retrieval

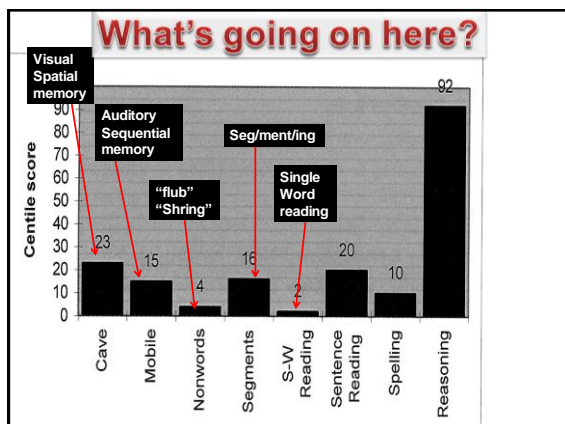
But

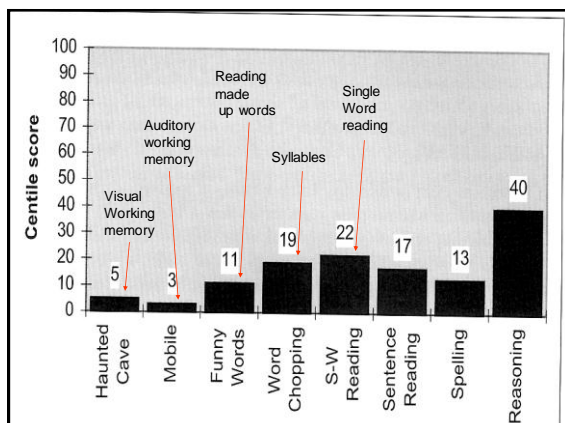


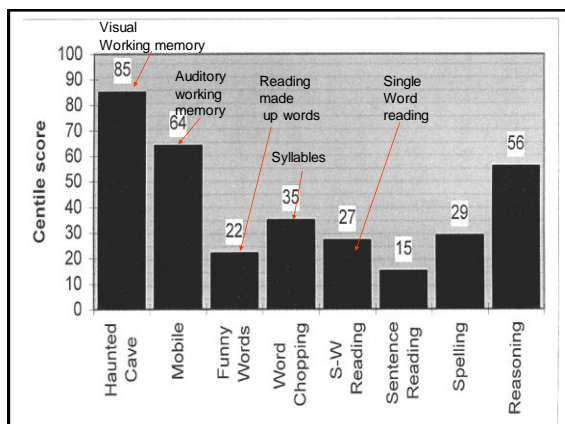
If Dyslexia is:

"A Specific Learning Preference Which Is Constitutional In Origin and which, for a given level of ability, may cause **unexpected difficulties** in the acquisition of certain literacy and numeracy skills"

Neil MacKay 2008





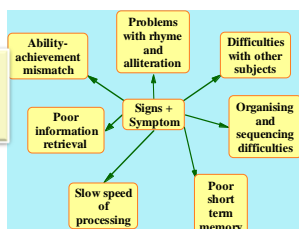


Task Time

- Consider a profile and analyse :
- Barriers to learning – how would they show?
- Ladders for learning – how can we include her at an ability appropriate level?
- And please prepare some “Inclusive advice” for teacher(s)

- This student has difficulties with....
- This means that s/he will have problems in class with.....
- It will helpif we all....

Your chance to contribute to School Policy. What is “in the gift” of all teachers in terms of Inclusive “reasonable adjustments”?)



Cerebellar Issues

- Timing/sequence deficit
- Phonological deficit
- Motor control deficit
- Poor naming speed
- Poor time estimation, poor motor, development
- Poor balance

Rapid naming pictures

Author Dr Ian Smythe

© Ian Smythe, 2002

17/05/2012

In the classroom

- Losing the thread – working memory and phonological processing issues
- Skill overload – generating ideas while remembering secretarial skills
- Organisational skills – especially tasks requiring speedy sequential processing
- So reasonable adjustments include....?

So:

- We evolved through neurological diversity
- Group problem solving is best when there are more differences between brains
- Neurological diversity means some brains are wired differently
- This provides potential advantages for creativity, divergent thinking and visuo-spatial problem solving
- Unfortunately these strengths can come at the expense of reading

Duncan Milne 2005

"...intensive and one-to-one is best"
(Torgesen, 2001)

Hmm – might
disagree here

"...the earlier, the better" (Shaywitz, 2003)

"...more intensive, more relentless, more
precisely delivered, more highly
structured and direct, and more carefully
monitored for procedural fidelity and
effects" (Kavale, 1996)

"According to a review of the research
and clinical consensus,
the combination of the following
five principles
will facilitate the dyslexic learner's ability
to learn and recall information."



-McIntyre and Pickering (1995)

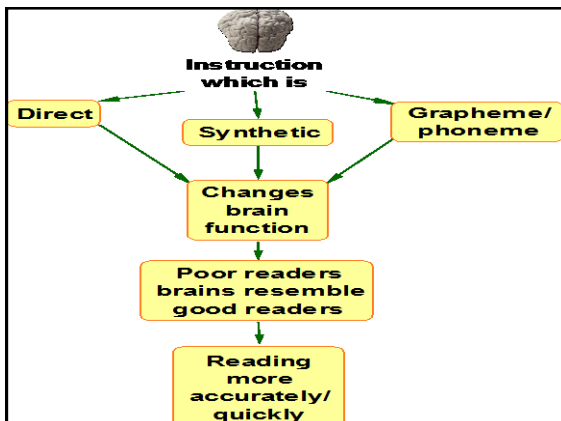
Principles of Effective Multisensory Instruction for Dyslexic Learners

- (1) simultaneous employment of as many senses
as possible (multi sensory)
- (2) systematic and cumulative organisation of
content;
- (3) direct, teacher-led instruction;
- (4) diagnostic teaching to mastery;
- (5) synthetic and analytic presentation.

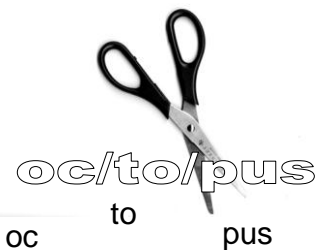


Professor Maggie Snowling of York University (UK) said,
 "As far as I can see, the only effective treatment for dyslexia
 in children is a structured phonic program in a one-on-one
 situation, backed by confidence-building.

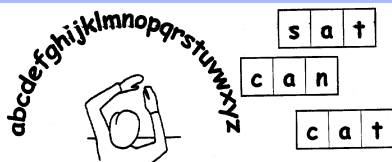
But....



Phonological Awareness – the ability to
 manipulate, segment and blend sounds
 into words



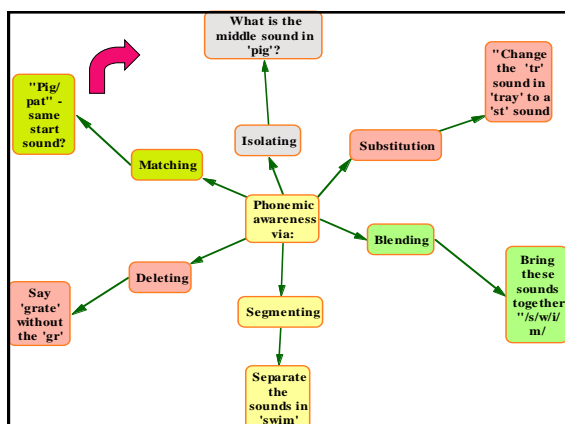
The Alphabet Arc



- Change the vowels for different coloured letters
- Introduce early dictionary skills.

Phonological Deficit Theory

- Segmentation and synthesis of sounds – taking apart and putting together
- Verbal naming – I know what I want to say but I can't find the word
- Verbal memory – storing and transferring short term information
- Susan Gathercole
- Tracey Alloway



Phonemic Awareness

- *The first step.
- *Teaching how to listen to a single word or syllable and break it into individual phonemes
- *Also:
 - -taking individual sounds and blend them into a word
 - - change sounds
 - -delete sounds
 - -compare sounds
- N.B. These skills are easiest to learn before someone brings in printed letters.



all in their head



Cognitive Deficits

- Phonological processing – rhyming, alliteration, word segmentation
- Short term (working) memory
- Lexical access – word finding, rapid naming
- Automisation of skills
- Visual stress – blurring etc
- Temporal order discrimination – sound order etc

Auditory/verbal memory and Literacy Development

- Short term auditory/verbal “working memory”
- Holding information for a brief time while processing it
- Limited capacity– needs rehearsal for long term memory
- Decoding - must hold letters and syllables in memory to
- Comprehension, hold words until end of phrase/sentence
- Often difficulties monitoring written output
- May miss out letters/syllables/words when writing
- Possible link with articulation (speech rate) – rapid naming
- Segmentation issues– significant predictor of later literacy problems

Visual Memory and Literacy Development

- Vital pre alphabetic/logographic phase
- Difficulties segmenting on basis of sounds and sound letter mapping + early predictor
- Bias towards visual encoding – using pictorial rather than verbal information
- Difficulties learning to attach verbal labels to visual stimuli
- Good visual/poor verbal:
 - difficulties acquiring effective phonological decoding strategy
 - problems as number and complexity of new words increases

See "Developing the Memories"
handout

Make and Break

- The multi sensory alternative to LCWC
- The learner is given the letters and:
 - Makes the word
 - Breaks the word
 - Jumbles the letters
 - Makes the word

Next

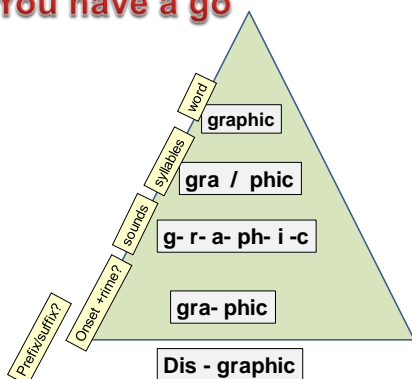
- Take a friend through – explain what you did
- Photograph with your mind – "look to see"
- Visualise – "remember with your eyes"
- Cover, Write, Check
- How many preferences

So let's chunk for:

**Ma/king sense with
Syl/la/bles**

Pho to syn the sis

You have a go



Let's try "sound boxes"

Sh	l	u	b	
----	---	---	---	--

s	p	l	u	d
.

**The dot indicates 1:1
grapheme/phoneme
correspondence**

<u>sh</u>	i	n	t	
.	.	.	.	

**The line indicates a
digraph – two letters
combining to make.....**

Letter Progression (1 set per week)

- Set 1 s a t p
- Set 2 i n m d
- Set 3 g o c k
- Set 4 ck e u r
- Set 5 h b f,ff l,ll ss

Use the letters to make some pseudo words with some of the following patterns:

2 syllable – vowel name/vowel sound

1 or 2 syllable - Vowel sound + Blend

1 or 2 syllable - Vowel name + blend

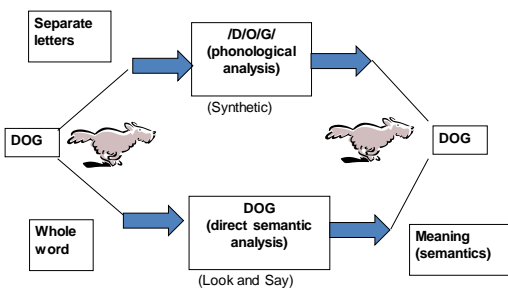
1 or 2 syllable vowel name plus digraph. Then:

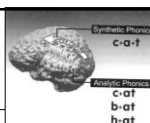
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Teach another pair your words using
"sound talk" and "sound buttons"

Chi / flaim

Two Routes for Reading





Synthetic:

- teaches letter sound relationships to upper circuit
- Strong aural component based around the 44 phonemes
- Effective tool for decoding new words

Analytic:

- Visual form of phonics
- Common patterns in words already learnt used to decode new words
- Lower circuit provides similar words – upper circuit computes letter-sound relationships

Studies on Reading Factors



Studies showing good word recognition skills can be developed in the absence of good comprehension:

Snowling & Frith 1986

Stothard & Hulme 1992

Studies showing that good comprehension can be developed in the absence of good word recognition skills:

Catts, Adolf & Weismer 2006

Spooner, Baddley & Gathercole 2004

Learning how to learn

- The brain is a “multi path, multi modal apparatus”
- We each learn in a personal, highly individual way so:
- Any tightly, logical planned group instruction will probably be wrongly planned for most
- It will inhibit, prevent, distort learning *LA Hart*

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Different Students have Different Needs

- | | |
|------------------------|-------------------------|
| • <u>Some prefer:</u> | • <u>Others prefer:</u> |
| • Explicit instruction | • Implicit experience |
| • Phonics for decoding | • Context |
| • Auditory input | |
| • Rules and structure | • Visual input |
| | • Big picture and flow |

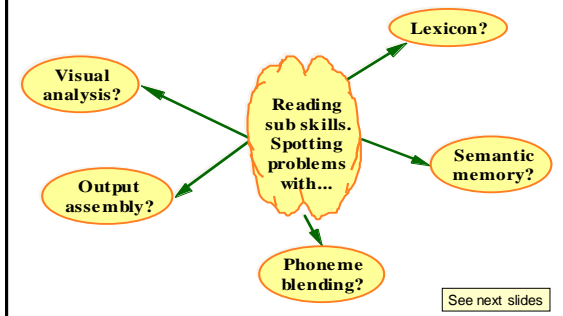
So:
**It's all a question of balance
 and preferred ways of learning**

Reading Sub Skills

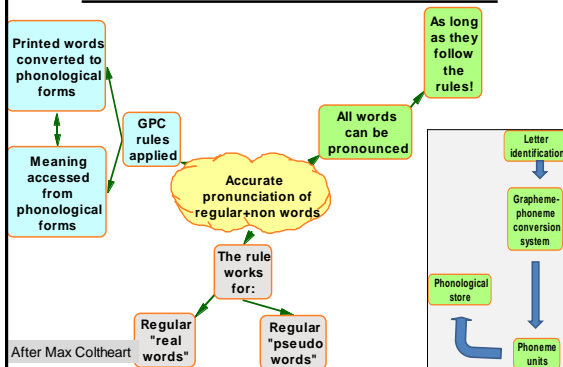
- Visual analysis – of the written word
- Storage and retrieval - from the lexicon (mental dictionary)
- Semantic memory – identification of meaning
- Grapheme to phoneme translation – letter to sound conversion
- Phoneme blending – sounds together in a sequence
- Output assembly/phonology – bringing sounds together before speech

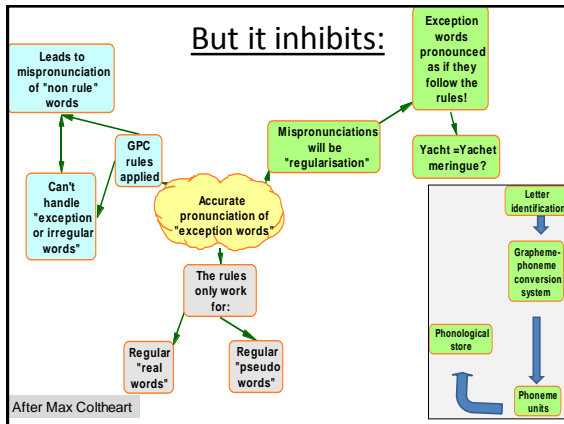
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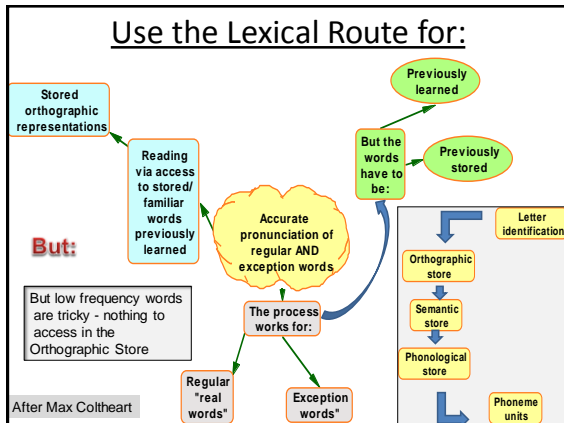
Picking up reading issues without testing

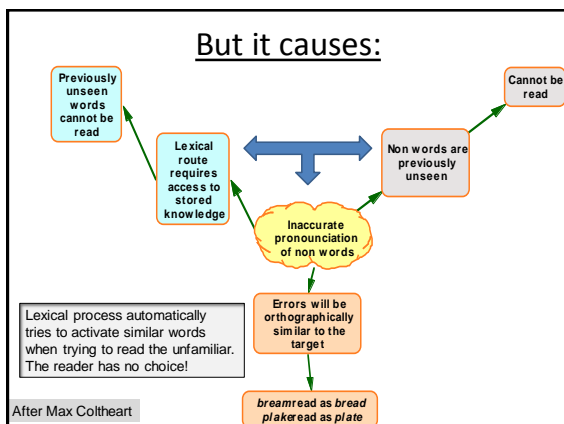


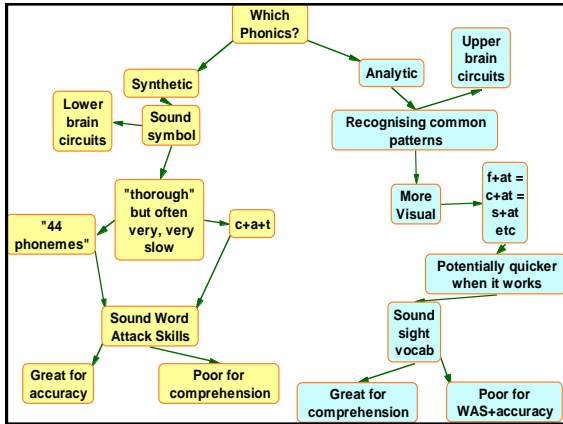
Use The Non-lexical route for:













TCP-QR

- **T – Title**
 - What is this all about?
 - How does it fit in
- **C - Captions**
 - Anything in bold
 - Anything which catches the eye
- **P – Pictures**
 - Context clues
 - What is it about?
- **Q – Questions**
 - Highlight "action" words
 - Any new information?
- **R – Reading**
 - Skim/scan for information
 - How accurate were your predictions?

Are Emotions The Key?



Emotions

- Have primacy in responding to sensory data
- Can overwhelm rational thought

Because:

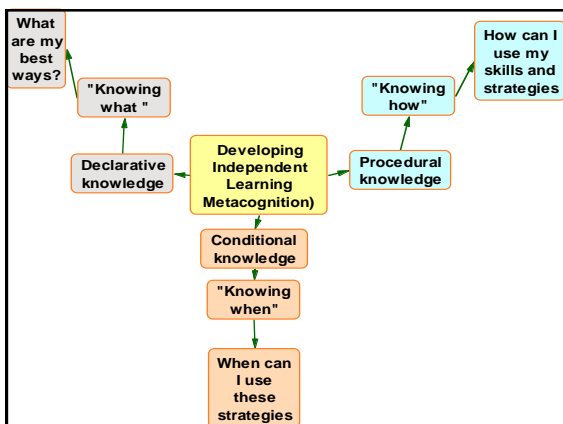
"Sensory data is routed via an emotional response system before passing to the rational"

One major source of stress?

- "Not being able to do what the teacher wants in the way s/he wants it done"



One solution?



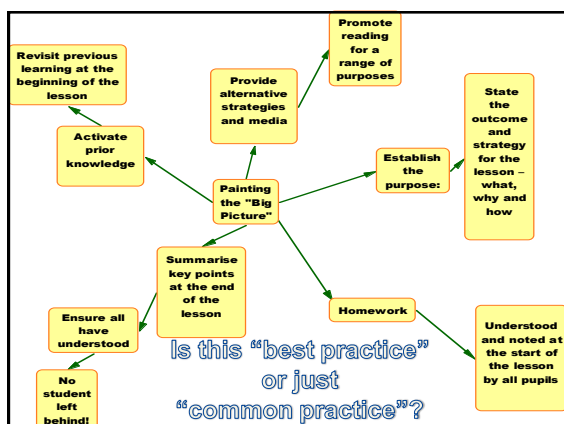
In Other Words:

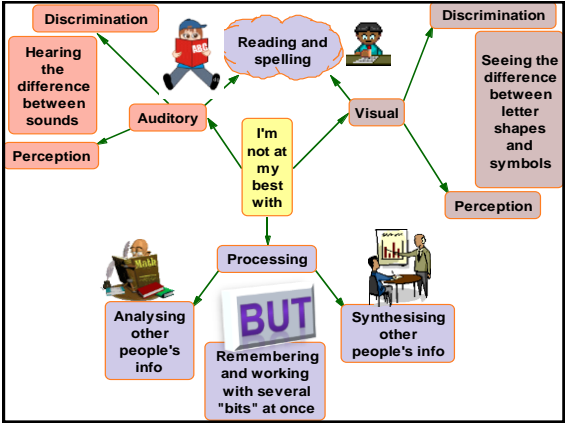
We can trust our “think faster” pupils to:

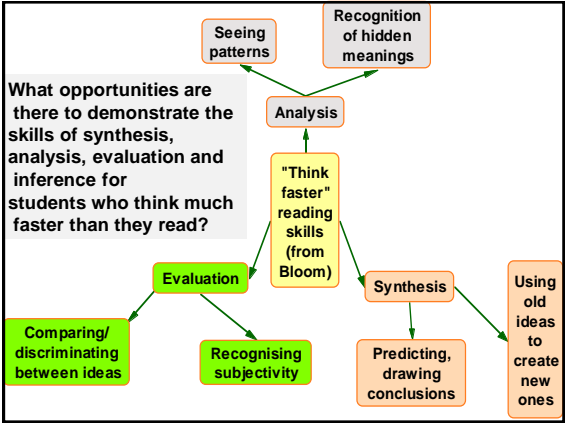
- **Interpret** a task according to their learning preferences
- **Choose** appropriate methods of presentation that suit their preferences
- **Provide** evidence in appropriate and acceptable ways

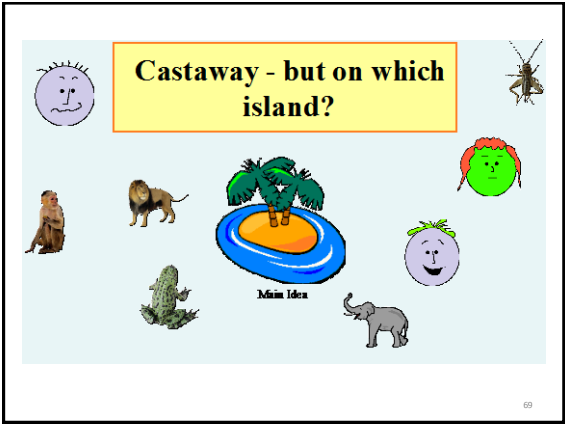
Inclusion and empowerment through reading out loud

- Do we say to teachers “Please don’t ask some people to read out loud”?
- Or do we say “Please ask everyone to read out loud, but build in the right to pass”?
- The right to pass is the inclusive option












Travelling companions




NATHAN FELECCIA
aged 13
Strong and athletic: a keep-fit freak. Independent and inclined to 'stand on his own feet' things on his own without help from anyone. Has a phobia about snakes.




JULYARA KHAN
aged 12
Efficient, sensible and hard-working. Has very firm views of her own. Good at organising and she can be impatient with people who do not see things her way. Vegetarian.



CRAG WINSTANLEY
aged 11
Not physically strong but very going: he is always a very popular member of any group he is in. He loves cooking and he is very good at it. Suffers from asthma.



PAULINE THOMAS
aged 13
She's active and fit: one of her school's best football players. She is also good at practical things and regularly comes top in Craft Design and Technology. Hates all domestic tasks. Only eats junk food.



SHELAGH VINE
aged 12
Helpful, willing and cheerful: she is very good at cheering people up when they are down. Can be over-enthusiastic and untidy. She is not a natural leader and does not like to be in charge. Short-sighted.

You have been asked to choose two extra people to join the group who will live on the island. These five have been suggested.

- For each person decide what are their strong points and what are their weak points as members of the Island Survival team.
- Decide which two you would choose and why.
- Now write a short description of yourself which sums up your strong and weak points in the same way as the descriptions on this page.

Homework Task 1

- Choose an Island for a castaway
 - Write a short balanced report to explain:
- Reasons for your choice :-
 - good,
 - bad
 - interesting

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- I have decided to go to....
- It is a good island because....
- There are some problems because,,,
- Some interesting points are...
- So my final decision is.....because....

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Going for gold

- Choose a sentence and:
- Add a powerful adjective
- Change or add a “wow” word
- Use a connective to add a new idea
- Start with an “ing” or “ly” word

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Action Time(Including Lee)

- “My Island” – which one is best to live on?
- Process the information on each island, using colour/shading etc to identify good + bad points + anything “interesting”
- Chart the information – see next slide
- Mindmap the information – use as few words as possible – pictures are cool!
- Challenge – can you come up with the “Island Rap”?

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**CPD Opportunities
In Australia
For 2012/13 with Neil via
Action Dyslexia**
www.actiondyslexia.co.uk
info@actiondyslexia.co.uk



Option 1

- Bespoke whole school training – driving whole school issues through CPD based on raising the achievement of vulnerable learners:
 - **You** choose the focus
 - **We** work together to identify the issues
 - **Neil** delivers the messages

As booked with schools in Auckland, Whangerei, Taupo, Napier, Rotorua and Tauranga in 2012

5/17/2012



Option 2

- “Combination CPD” – possibly including:
 1. Working with small groups of teachers on specific issues
 2. Demonstration lessons + plenary – modelling inclusive practice on a variety of aspects (reading/writing for reluctant learners, learning how to learn/revision skills etc)
 3. After school presentation/workshop for all staff
 4. As planned and delivered with schools in Auckland Rotorua, Taupo and Tauranga involving school staff and groups of teachers invited from local schools

5/17/2012



Option 3

- Cluster/regional Profit Sharing Conferences – speak to Neil or email info@actiondyslexia.co.uk for more details.

As organised in Auckland Taupo , Cromwell In 2011 and 2012 with plans for an event in Queenstown later in the year.

5/17/2012
