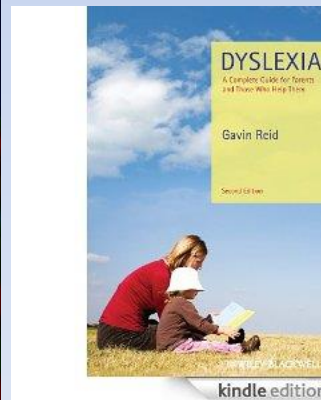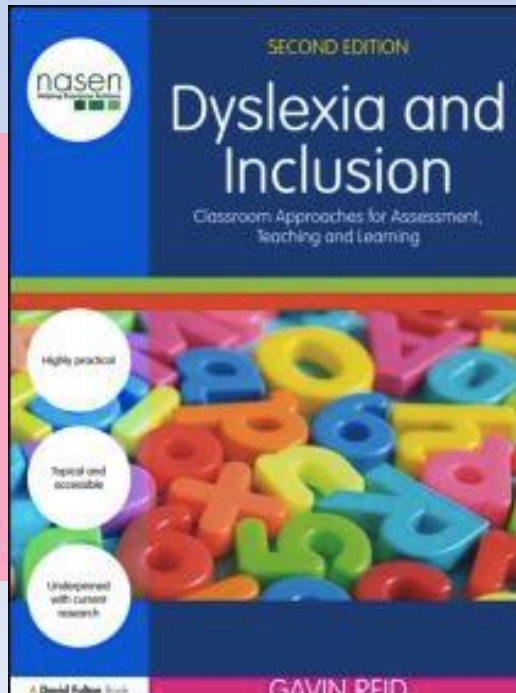# Dyslexia: Meeting the Needs of All

Dr. Gavin Reid

www.drgavinreid.com

gavinreid66@gmail.com

Overview of Day

Understanding and dealing with dyslexia

- Dyslexia definition, characteristics and positive Dyslexia.

Meeting the needs of all:

- Assessment process, curriculum access and metacognition

Teaching styles and inclusive classroom practices

- Learning preferences, learning environment, practice and provision.

Outline of Course

1. Dyslexia: definition

2. Assessment

3. Teaching and Learning:

   Dyspraxia, ADHD, Overlap

4. Learning Environment

5. Learning Styles

6. Differentiation

7. Metacognition

Understanding and dealing with dyslexia

- Dyslexia definition
- Characteristics and
- Positive Dyslexia.

Dyslexia definition: Reid (2009)

- *"Dyslexia is a **processing difference** characterised by difficulties in literacy

- it can affect **cognition** such as memory, speed of processing, time management, co-ordination and directional aspects.

- Can be visual and phonological difficulties

- there is usually **discrepancies** in performances

- It is important that the **individual differences** and learning styles are acknowledged

- as well as the learning and work **context**

What is dyslexia ?

- Dyslexia can be minimized through accommodations
- Dyslexia is not related to intelligence
- Discrepancies in performances can be seen
- Dyslexia varies in severity
- Can be creative and think 'outside the box'
- Can be a great asset to a team
- Difficulties in processing speed
- Challenges in literacy
- May have difficulties with working memory
- Usually right brain processing style

Main Theories of Dyslexia

1. The Phonological Deficit

2. The Double Deficit Hypothesis

3. Magnocellular Deficit Hypotheses

4. The Automatisation Deficit

   Hypothesis

5. The Cerebellar Deficit Hypothesis

Cognitive Dimension

- phonological processing

- naming speed

- working memory

- metacognitive factors

- automaticity

Behavioural dimensions

- pattern of errors in reading and spelling
- writing difficulties
- time management difficulties
- more time to complete work
- inaccuracies in copying
- avoidance of writing
- discrepancies in performances in curricular activities

Environment

- Learning environment
- Music , movement, lighting
- Classroom design
- School ethos
- Learning styles
- Education policy/legislation
- Social and Cultural factors

Importance of the task

5. Have a look at colours and styles and decide if you need any more materials

6. Make a list of each of the tasks and check each after completion.

Reflection: what did you find difficult ; what did you find easy?

Meeting the needs of all:

- Assessment process,

- curriculum access and

- metacognition

Types of Assessment

- Screening
- Curriculum-based tests for teachers vs. Closed tests for psychologists.
- Norm-referenced vs. Criterion referenced
- The Dyslexia Assessment
- The Needs Assessment
- Metacognitive Assessment
- Evidence based assessment
- Formative /Summative

Purpose of assessment

- To understand the obstacles to learning
- To evaluate strengths and weakness
- To develop the Individual Educational Plan.
- To develop better ways of teaching and learning
- To categorize for provision of support
- For self-awareness and understanding.

Assessment Criteria

- **Difficulties -**
  - decoding
  - speed of processing
  - short /long term memory
  - reading fluency
  - automaticity
  - metacognition
  - syntax
  - organisation

- **Discrepancies**
  - decoding and listening comprehension
  - different subject areas of the curriculum
- **Differences**
  - learning style
  - environmental preferences for learning

Good

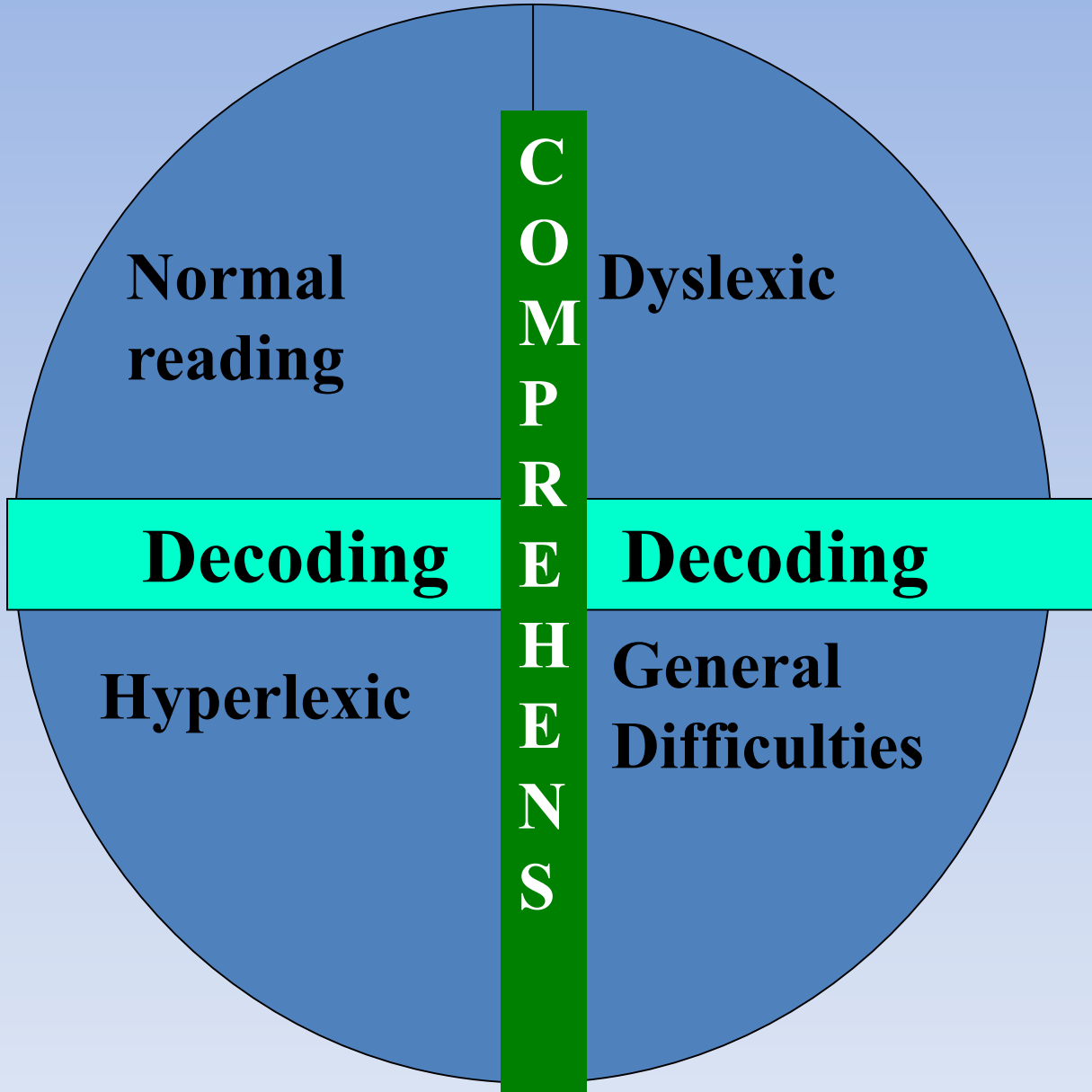Good ——— Poor

Poor

COMPREHENS

Normal reading

Dyslexic

Decoding

Decoding

Hyperlexic

General Difficulties

List of Non-Words

- gare
- duncle
- ract
- gar
- bace
- recide
- kaces
- gade

- skare
- chape
- skar
- kute
- gite
- fedge
- giit
- bage

Assessment Framework

- **Sensory Assessment**
- **Word Recognition Test**
- **Non-Word Recognition Test**
- **Spelling Test**
- **Phonological Assessment**
- **Miscue Analysis**
- **Reading/Listening Comprehension Test**
- **Free Writing**
- **Curriculum Information**
- **Observational Assessment**
- **Additional Relevant Information**

Barriers to Learning

Social	Emotional	Educational
1.		
2.		
3.		
4.		
5.		
6.		

Can we anticipate barriers to learning?

Memory

- Remembering instructions
- Remembering sequences
- Forgetting equipment
- Confusion with time, dates and days of the week
- Remembering rules and patterns

Social Skills

- Turn taking
- Sharing
- Listening
- Social conventions
- Other people's feelings
- Appropriate social behaviour

Speed of Working

- Handling time pressures
- Working too fast/too slow
- Using inefficient methods
- Constantly checking
- Lose track of aim and/or purpose of task

Organisation

- Planning
- Structures of working
- Presentation
- Clarity in response
- Procedures
- Focus

Observation and Criterion Assessment

The Interactive Observational Style Identification

Emotional /motivation

Persistence

Responsibility

Structure

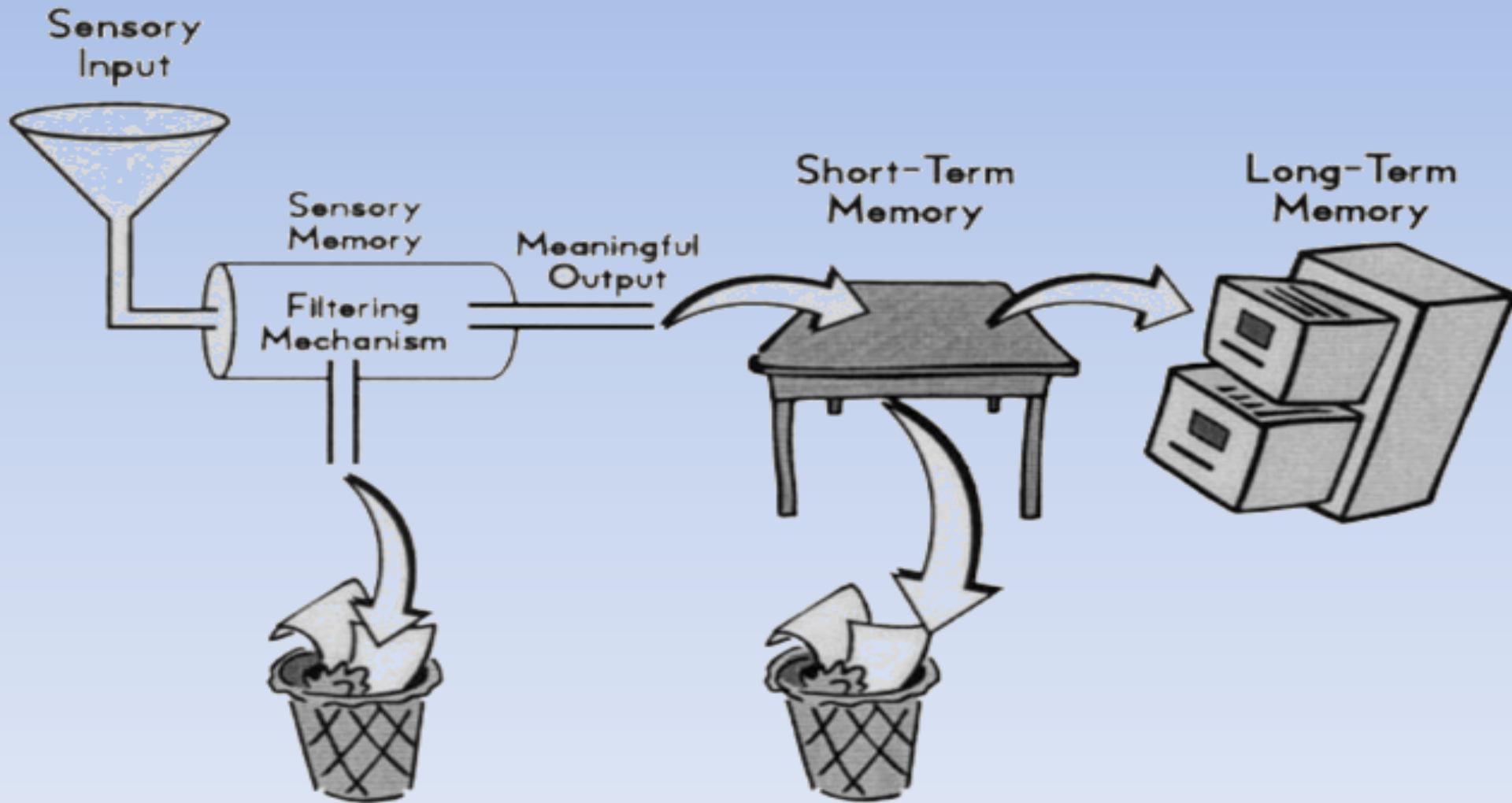Social interaction

Communication

Physical mobility

Food intake/ Time of day

Cognitive/ modality preference

Metacognitive

Memory system

Sensory Input

Sensory Memory
Filtering Mechanism

Meaningful Output

Short-Term Memory

Long-Term Memory

A Problem to Solution Approach
What if I am concerned about a student?

1. Clarify the concern

2. Get your evidence

3. Planning for learning

4. Action/ Implementation

5. Monitor/Review

Clarify the concern

- Can you define the problem?

- Who has a problem?

- Why are there concerns?

What do we want to achieve?

What strategies have been attempted which work/don't work?

Get the evidence

- Look at the full range of evidence already available

- Further assess the extent of the difficulty

- Consider further assessment

- Establish a starting point for intervention

- Is this a balanced view, has everyone been consulted?

Plan

- What strategies/ programmes will be used?

- Who will implement them?

- What are the specific short term targets?

- Involve parents

- Who will monitor the progress?

- How will progress be measured?

Action

- What is going well?

- When is it working?

- Has progress been measured?

- Is progress evident?

- Has monitoring informed future targets?

- Should the plan continue?

- What are the future targets?

Workshop activity
Problem to Solution Approach

Case studies

Use a problem to solution approach with this case study.

Problem to Solution Approach

George (not real name)   age 6.5

George is in P2 and has struggled with learning to read since he began Primary. He had his eyes tested in P1 and was found to be a little long sighted in his left eye.

He began wearing glasses for close work at that point. There did appear to be a slight improvement in his confidence with reading.

 At this point it was as though he couldn't retain the information about letters and words he had learned.

Current difficulties:

- George's homework is a problem and he confuses 'b' or a 'd'.

- He consistently wrote 5, q, z, s and c backwards.

- When reading he sounded out 'oh' as h and o; 'went' and 'will' were read as was;

- when reading 'little' he sounded out the word but was confused by the 'e' at the end and so couldn't blend it.

- Also, phonetically he can understand single sounds, but double letter sounds, such as sh and ch, confuse him.

Indication of strengths:

- George is a very active boy who interacts well with those around him.

- He wants to go to school and tries hard while there.

- He has a great understanding of how to work electronic equipment.

Wechsler Intelligence Scale for Children (WISC 1V)

Indices	Composite Score	Percentile Rank	confidence interval	Qualitative description
Verbal Comprehension	108	70	101-114	Average
Perceptual Reasoning	100	50	92-108	Average
Working Memory	83	13	77-92	Low Average
Processing Speed	97	42	88-106	Average
Full Scale IQ	99	47	94-104	Average
General Ability Index	105	63	99-111	Average

Wechsler Individual Achievement Test (WIAT-III)

Word Reading	91	27	Low Average
Pseudoword decoding	85	16	Low Average
Spelling	88	21	Low Average
Numerical Operations	89	23	Low Average

Gray Oral Reading Tests (5ᵗʰ edition) GORT -5

Subtest	Percentile	Standard score	Qualitative description
Reading Comprehens	5	75	Below Average
Reading Rate	NS*		
Reading Accuracy	NS		
Reading fluency	NS		

*NS = no score

Areas of Priority for George

George needs support with:

- Developing his reading accuracy and fluency.

- Developing word attack skills.

- Developing reading comprehension.

- Developing spelling skills and written work.

- Developing keyboard skills.

- Developing working memory.

- Extending language comprehension.

- Working on practical Maths skills.

- Ensuring he has clearly understood instructions

- Re-enforcement when he is learning new words

- Developing automaticity in reading through over learning.

Overlap

ADD and Dyslexia

- Information processing
- speed of processing
- working memory
- connections
- planning and previewing skills

Dyspraxia: Characteristics

- Gross motor skills – balance, coordination

- Speech and language

- Social skills

- Attention /concentration

- Visual /motor skills

- Spatial awareness

- Laterality

- Fine motor

Observation: Primary age Motor Development

- Appears uncoordinated

- poor naming/locating body parts

- Difficulty judging force in ball throwing

- Poor balance/ posture

- Lack of dominance

- Running, hopping, jumping difficulties

- Difficulty with buttons, laces

- Poor kinesthetic memory

- Cannot use two hands together for skills

- Poor spatial awareness

- Poor directional awareness

Observation: Primary age visual perception

- Poor planning and layout of work.
- Poor spacing of words.
- Variation in size of letters.
- Difficulty in remembering an image when it is removed eg copying from the board.
- Poor visual sequential memory.
- Remembering a series of visual images in order.

- CTONI

Observation: Primary age auditory perception

- Difficulty in discriminating sounds eg teachers voice/children's voices

- Difficulty ignoring background noise

- Difficulty recalling sounds in order

- Difficulty in flowing directions

Observation: Secondary age

- Appears clumsy/poor coordination
- Difficulty manipulating objects
- Poor sitting posture
- Handwriting difficulties
- Difficulty with diagrams
- Difficulty in recalling detailed instructions
- Difficulty in reading

- Difficulty in copying from board
- Difficulty using classroom equipment eg rulers, compass, scissors
- Disorganised – difficulties with following timetable
- Finding way round school
- Difficulty in PE

Intervention areas for dyspraxia

Gross- motor	Visual –spatial awareness	Auditory sequencing
Fine- motor	Crossing the mid-line	Balance
Coordination	Basic body awareness	Literacy

Strategy	Function
Talk	Discussion is crucial for most children with dyslexia - active form of learning and can help monitor understanding.
Drama	Drama - develop comprehension through active participation - kinaesthetic (experiential) modality - Encouraging drama activities can be beneficial.
Drawing	Some children can only learn visually so even the most basic of information may have to be presented visually.

Listening	It is important that listening is given a high priority –important that listening should be only for short periods of time + other forms of activities.
Feelings	Learning involves the whole person – the emotional aspects of learning are important. It is crucial to identify any anxieties your child may be experiencing around the learning process.

Gross Motor

- Games involving aerobic

  and dance exercises

- PE activities - ball sports,

- running, jumping, hopping

- Activities that facilitate control over

  the use of force – arm wrestling,

pushing, pulling

Coordination

❖ Mazes tasks

❖ Stepping over and

   stepping under

❖ Dance routines

❖ Line dancing

❖ Jumping through hoops

❖ PE

Visual activities

- Throwing, catching,

- Following moving

   objects,

- Search puzzles

- Skipping

- Beads threading

- Card games -matching patterns, SNAP

Auditory Activities

- Identifying sounds

- Same or different sounds – games

- Switching rhythms – music

- Karaoke

- Shopping lists

- Moving to different music

Dygraphia:Characteristics

- Letter inconsistencies
- Mixture of upper and lower case
- Irregular letter size and shapes
- Unfinished letters
- Reluctant writer
- Poor visual perception
- Poor fine motor skills

Dysgraphia - handwriting checklist – Points to consider

- Hand dominance
- Pencil grip
- Posture
- Paper position
- Pressure on paper
- Wrist movement
- Letter formation
- Left to right orientation

- Reversals of letters
- Spacing
- Letter size, formation consistency
- Style – joins in letters
- Speed
- Fatigue factors

Weedon, C. and Reid, G. Special Needs Assessment Profile (SNAP) Hodder www.snapassessment.com

- co-ordination,
- hyperlexia
- language and communication,
- auditory difficulties
- hyperactivity,
- attention
- dyscalculia
- dygraphia

- working memory difficulties,
- non-verbal difficulties,
- literacy diff.,
- phonological processing,
- visual difficulties
- social awareness

	Dyslexic	Dysgraphic	Dyspraxic	ADHD
keeping on task	✓			✓
concentration	✓	??	✓	✓
personal organisation	✓	✓	✓	✓
co-ordination	✓		✓	
recording info	✓	✓	✓	✓
group work	?		✓	✓
fitting in	✓	✓	✓	✓
social skills			✓	✓
Self-esteem	✓	✓	✓	✓
overload	✓	✓	✓	✓
routines				
literacy	✓			
sequencing	✓			
communication skills		✓		✓
language skills	?			
memory	✓		✔	✓
movement	?		✓	✓
behaviour				✓

Intervention Approaches

1. Individualized approaches
- Usually one on one,
- OG phonics approach,
- overlearning, multisensory,
- sequntial

2. Support approaches
- Supports what is happening in class,
- Differentiated worksheets,
- additional time
- computer programmes,
- paired reading, paired spelling, paired thinking

Reading with parents 'improves children's exams results'

- Parents can improve their children's academic performance by the equivalent of up to six months' schooling by reading together, singing songs and even sharing family meals, according to international research (Organisation for Economic Co-operation and Development 2014)

Telegraph Monday
14 July 2014

Intervention approaches

3. Whole School Approaches

- Study skills

- Thinking skills

- Learning styles

- Circle time

- Sport

- Skiing

Paired Reading versus Reciprocal Reading

Paired Reading

- student and tutor read together with the adult adjusting the speed so the two are reading in harmony
- student signals that he/she wants to read independently
- student reads until a mistake is made
- eventually student reads more and more independently
- When the student makes a mistake, tutor feeds them the word

Reciprocal Reading

- Taking turns reading
- Asking questions
  - after each turn reading (could be paragraphs, pages or chapters depending on student)
- Clarifying
  - Anything you don't understand
    - Vocabulary, concepts
    - phrases that are unfamiliar or could be misinterpreted

Summarizing and Making Predictions - paraphrase important details or events - predicting what will happen next

Automaticity - Overlearning

- games where children have to find picture cards beginning or ending with specific sounds

- where children have to think of the most words ending in that particular letter sound

- vowel discrimination games to develop auditory awareness and improve word attack skills and

DIFFERENTIATION

Differentiation is the difference between where a student is now and where he or she has the potential to be.

Subject specific vocabulary

History
- Revolution
- Epoch
- Dynasty

Geography
- Terrain
- Climate
- Environment

Chemistry
- Compound
- State
- experiment

Biology
- Stem
- Physiological
- Cell
- Mutation

English
- metaphor
- literature
- Syntax

Mathematics
- Calculate
- Fraction
- formulae

Subject specific vocabulary

Art
- Easel
- Texture
- sketch

Music
- Score
- Sheet,
- Orchestra
- Notes

Physical Education
- Words used in specific sports such as: line judge, substitute, etc.

Modern languages
- Accent
- Culture
- Customs
- Parts of speech
-

Task:

Differentiate the following text

PTO →

The London Plague of 1665

In the year 1665 death came calling on the city of London. Death in the form of plague. People called it the Black Death, black for the colour of the tell-tale lumps that foretold its presence in a victim's body, and death for the inevitable result. The plague germs were carried by fleas which lived as parasites on rats. Although it had first appeared in Britain in 1348, the islands were never totally free of plague, but it was like an unpleasant possibility that people just learned to live with while they got on with their business. This time it was different.

6. Metacognition

- Questioning - *'why, what, where, how'*

- Clarifying – '*I see, but what about this'*?

- Understanding – '*right I get it now'*

- Connecting – *'I did something like this last week'*

- Directing – *'okay I know what to do know'*

- Monitoring – *'maybe I should do this now –that does not seem to be correct'*

- Assessing – *'so far so good' 'I think I am on the right track'*

Managing Learning 20 Key principles

1. Acknowledge all efforts
3. Provide individual feedback
4. Cater for all
5. plan, plan plan
6. Anticipate problems – Pro-active
7. Acknowldge learning preferences
8. Consult with others
9. Provide student choice
10. Make student feel important

11. display student work
12. Multi-sensory teaching
13. Recognise strengths
14. Work with families
15. Positive re-inforcement
16. Prepare extension work
17. respect individual cultures
18. Initiate classroom routines
19. ???
20. ???

Learning Environment

Continuum of classroom environments

Left Hemisphere   **Right**

TheMind your Table Manners	The set menu	The a la carte	The Buffet	The 'Street Market'

Classroom design - Task

Discuss a student with the person next to you

2. Which of the classroom designs would

best fit the student?

3. Design the optimum classroom for

children with dyslexia

4. Learning Styles

Learning Styles?

Learning styles are characteristic, cognitive, affective and physiological behaviours that serve as relatively stable indicators of how learners perceive and interact with to learning environment.

Learning Style – Theory and Practice

Jim Keefe 1987

Dr.Gav

Strategies for global learner

- Work in groups
- Include lots of discussion
- allow scope for creativity but provide some kind of structure
- Active and interactive learning
- Lots of why questions
- Lots of visuals, colour, music
- Usually can cope fairly well with background noise

Strategies for analytic learner

- Checklists
- Researching for information
- Set achievable goals
- Extension exercises
- Give time limits
- Likes structure, sequence and order

Activity

Learning Style

Task/ Activity

- Auditory

- Visual

- Kinaesthetic

- Persistent

- Global

- Social

- Metacognitive

- Tactile

Learning Style	Task
Auditory	Make lists, find out information,
Visual	drawings, diagrams, use DVD, computer programmes
Kinaesthetic	Arrange visits, activities, field trips
Persistent	Lengthy tasks, problem solving activities
Global	overview, short tasks, frequent breaks, discussion
Social	Work in groups, in pairs, discussion
Metacognitve	Problem solving, thinking skills
Tactile	Hands-on, model making, demonstration

Motivation

Instrumentality (I) is the belief that a person will receive a reward if the performance expectation is met (either intrinsic or extrinsic)

Expectancy (E) is the belief that one's effort will result in attainment of desired performance goals

Valence (V) the value the individual places on the rewards based on their needs, goals, values and sources of motivation

Motivating Learners

- Setting goals, short term targets and rewards
- Intrinsic motivation
- Whole school ethos and school climate
- Prevent 'learned helplessness'

Types of Motivation

Motivation by Task

- Task must be achievable

- Broken down into small steps

Social Motivation

- The influence of peer group

Motivation by feedback

- Continuous and formative

Motivation by achievement

- Depends on learners
readiness for task

The motivating environment

- Classroom design
- The motivated school
- school ethos
- Learning experiences
- Learning styles
- Choice, freedom and creativity
- Stress proof school

10 Strategies for Motivation

1. Ensure success with small achievable

   steps

2. Provide feedback to students about

   their own personal progress

3. Help learners believe in their own abilities

4. Acknowledge the individual styles of each child

5. Use observation to begin with to get to know

   the learning and environmental preferences of

   the students.

Dr.Gavin Reid, www.gavinreid.co.uk

6. Group work as motivator

7. Encourage self –assessment

8. Develop student responsibility

9. Encourage creativity

10. Celebrate success

Motivated Learning stems from a motivated school

Emotional Literacy checklist

- Does the learner show any stress signs?

- Can the student be left to work independently?

- Can the student persist with the task or will he/she require monitoring?

- Can the learner only work for short periods?

- Does the learner require constant re-assurance?

- Is the learner aware of the needs of others?

Dyslexia negative effect on self-concept

- Humphrey and Mullins (2002) concluded from the results of their study that the experience of dyslexia has clear and demonstrable negative effects on the self-concept and self-esteem of children

- *'the parallels between learned helplessness and children with reading difficulties are striking* (p.197).

How to boost self-esteem

- "They need to achieve"
- Ensure success and give
  genuine praise
- Dyslexia is a difference, not a deficit
- Focus on their strengths and develop them
- Point out progress – self-attribution
- Avoid "learned helplessness" – allow for pride in achieving

Foundation for Learning

5 Needs

1. Need to develop independent learning,

2. Need to consider the whole child – including the social and environmental aspects as well as cognitive factors.

3. Need to recognise individual differences.

4. Need for learners to develop their own learning strategies and to be able to adapt these to different learning situations,

5. Need to recognise the diversity among learners

Consolidating learning

- Learning is a process and this process takes place over time

- Learning requires a period of consolidation

- Learning is more effective when the content is familiar

- Over learning needs to be planned

- Learning is holistic

- Learning is long -term

Main challenges in parenting a child with dyslexia (Reid, 2009)

- Maintaining child's self-esteem
- Helping the child start new work when previous work not yet consolidated
- Protecting child's dignity when dealing with therapists/professionals
- Personal organization - child
- Peer insensitivity
- Misconceptions of dyslexia
- Homework

Barriers to Learning – Prevention

Social	Emotional	Educational
1.		
2.		
3.		
4.		
5.		
6.		

Teacher checklist

- Have small steps been used?

- Are the sentences short?

- Is the vocabulary easy to
   understand?

- Have visuals been used?

- Has large print been used?

- Is the font style appropriate?

- Has enough attention been given to presentation?

- Are there opportunities for self-monitoring and self-correction?

- Are the tasks within the child's comfort zone?

Sounds Easy

Jolly Phonics

Study Skills

Alpha Sound

Kidspiration   Catchwords

Oxford Reading Tree

Paired Reading

Bangers and Mash

Toe by Toe

Fuzzbuzz

Hickey

Co-writer

A hand for spelling

Write out loud

Reading Recovery

Stile Early Phonics

Circle Time Banger

Number Shark

Beat Dyslexia

Phonic code cracker

Phonic links

Ace spelling activities

Somerset Thinking Skills

Visualizing and verbalising

Alpha to Omega

Sound Linkage

Acceleread, Accelewrite

Wordshark

Starspell

Sure fire phonics

Intuitive overlays

Letterland

FUN –TRACK
LEARNING

Catch Up

Nessy
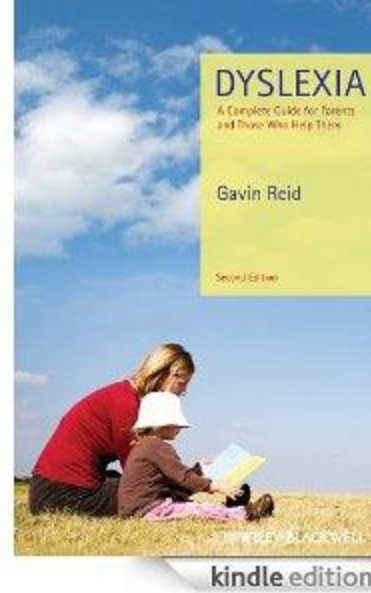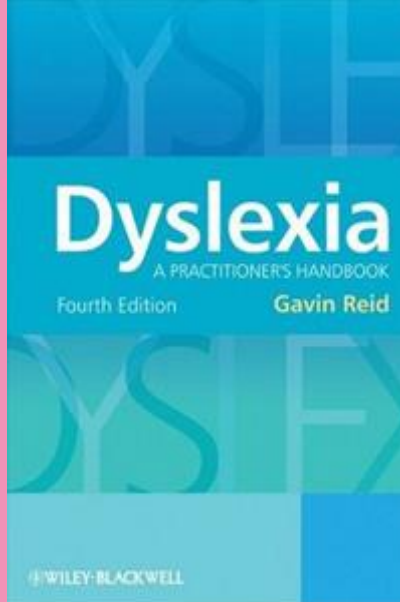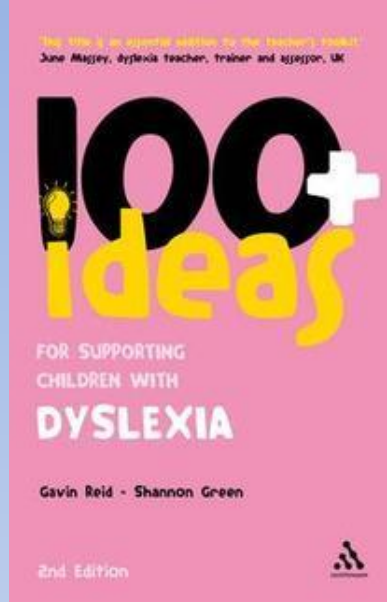
"If the child doesn't learn the way you teach,
can you teach the way he learns?"

'We ought to begin to pay

less attention to getting

everyone over the same

hill using the same path.

We may wish to encourage some to take different

routes to the same end.

Then we might see good reasons for paying

careful attention to their descriptions of what

they have found.

We may wish to follow them some day'

www.drgavinreid.com