

Dyspraxia

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Overview

**Understanding Dyspraxia
Strategies**

Dyspraxia

- A movement disorder affecting children and adults in more than one setting-i.e. pervasive
 - Enduring
 - No definitive cause
 - Heterogenous in nature - Individuals may vary in how their difficulties present and in severity.
- (Kirby 2013)

- Dyspraxia isthe generic term to explain a range of movement difficulties (*Talukdar 2012*)
- Pupils with DCD have difficulties with motor co-ordination as compared with other pupils of the same age (*Chambers and Sugden 2006*)

- Performance in daily activities requiring motor co-ordination is substantially below that expected given the person's chronological age and measured intelligence (*Chambers and Sugden 2006*)

Developmental Coordination Disorder (DCD)

Children whose development of motor coordination is impaired are sometimes referred to as having DCD or dyspraxia (Mortimer 2004)

What is Dyspraxia?

- If you ask different professionals what dyspraxia is, **you get different answers, depending on their field of expertise** (*Boon 2010*)
- •**Physiotherapist** – impaired motor performance not linked to any known clinical cause
- •**Speech and Language therapist** – motor difficulty affecting a child's initiating and sequencing of sounds and words
- •**Teacher** – inattention and lack of concentration, coordination difficulties
- •**Parent** – clumsy, disorganised, poor coordination (*Boon 2010*)

THESE MAY ALL BE DESCRIPTIONS OF THE SAME CHILD

History

- 1963-“minimal cerebral palsy”; “minimal cerebral dysfunction” (Bax & MacKeith)
- 1965- perceptual-motor dysfunction (Ayres)
- 1967-visuo-motor disability in school children (Brenner)
- 1968/70 -Clumsy child syndrome (Illingworth)
- 1975- Developmental apraxia (Gubbay)
- 1982- Developmental dyspraxia (Denckla)

(Kirby, 2013)

Dyspraxia v DCD

- The Dyspraxia Association of Ireland
- Circular 02/05 uses term Dyspraxia

- *Praxis is the function by which we plan movement... reflecting a belief that the movement difficulties reflect an inability in those with the condition to perform this planning and therefore, to execute these movements (Platt 2011)*

- Ideation
- Organisation
- Execution

(Cluas 2013)

- **Children may present with difficulties with:**
- Writing/typing
- Posture and balance eg riding a bike
- Self care tasks
- Recreational activities.
- Organisation and planning skills
- Speech and Language skills

(Kirby,2013)

A typical day

- Think of a child of any age
- Go through what happens in a day from getting up in the morning to going to bed
- List the activities that are non motor!

Dyspraxia and....

- Dyslexia up to 35%
- ADHD up to 50%
- Autism Spectrum Disorders (ASD)
- Dyscalculia
- Depression and anxiety

(Kirby, 2013)

Consequences of poor motor functioning

- **Participation socially**
- **Cardiovascular fitness**
- **Weight gain**
- **Mental well being**
- **Family functioning**

(Cairney et al 2005)

Gender differences

- 3:1 boys to girls (Kirby 2013)
- 4:1 boys to girls (Christmas 2011)
- External pressures

Prevalence

- Between 1 in 10 and 1 in 15 (DAI, 2013)

Assessment

- Maintaining accurate records of a child's progress is critically important....
 - Observations/Checklists
- Record Sheet: Child's name, date, focus of observation, observed by and time of each observation recorded (Dukes & Smith 2009)
- Background information- developmental milestones are useful
- Children with ADHD should be assessed for motor problems... (*Fliers et al 2010*)

Assessment

- Evaluation by a therapist skilled in the assessment of motor development and quality of movement is essential (*Kurtz 2008*)
- Careful and systematic parental and teacher observation is key
- Clinical assessment: GP, Speech & Language Therapist, Physiotherapist, Occupational Therapist, Educational Psychologist.

Assessment

Motor skills screening:

Bruininks-Oseretsky Test of Motor Proficiency

Movement Assessment Battery for Children
(ABC)

U.S./U.K./Ireland

Strategies

- **M.A.T.C.H.** the activity to the individual

Modify the task

Alter expectations

Teach strategies

Change the environment

Help by understanding

M.A.T.C.H. strategies available

from CanChild website

<http://www.canchild.ca/>

A. Kirby 2013

Seating

- Adjust chair to maximise posture/make comfortable
- Movement breaks – short and regular

Materials/writing

- Different types of paper (colour coded and graph, for example)
- Writing on alternate lines
- Variety of writing tools- examples?
- Biro grips
- Use a binder with dividers with inside pockets
- Extra set of books for student- Is this possible?

ICT

- Laptop / Tablet for written work
- Software for word recognition/ speech recognition and graphic organisation (speech to text, text to speech etc)
- Clicker
- Photo Story
- Power Point
- Use spell check
- Screen rulers
- Changing background colour

What is the end goal – learning or writing ?

Time

- Provide extra time to complete tasks- state this beforehand to reduce anxiety
- Use a timer/IWB – provide visual reminders
- Allow the student to start early
- State allocated time

Assessing student's work

- Negotiate level of neatness required in notebooks
- Reduce number of questions asked
- Allow oral test taking
- Accept point form answers
- Avoid too much writing – use matching, fill in blanks where possible
- Accept different assessments methods eg speeches, displays

Assistance

- Photocopy notes
- E mail?
- Assign a writing buddy
- Monitor homework completion
- Provide step by step instructions – no more than 2 at any given time
- Use visual supports

Organisation

- Uniform
- School Rules
- School bag – front pockets, diagonal strap design suitable for pupils with balance difficulties
- Time - Watch/phone
- Extra copies of timetable- in journal?
- Clear pencil/biro cases
- To do list

Concentration

- Allow student to choose activities of interest wherever possible
- Vary the way information is presented
- Avoid long, laborious tasks
- Keep wall displays to a minimum
- Avoid disturbing when on task

(DAI, 2020)

Speech and Language

- Provide supports to help recollection of personal experiences
- Prompts
- Use closed questions rather than open ended
- Model fluency
- Show interest in “student talk”

(DAI, 2020)

Social Skills

- Role play to develop understanding of the concepts of private and public
- Social groups
- Use social stories to explain social rules and expected behaviour

(DAI, 2020)

Flexibility

- Use strategies such as comic strips and social stories to teach empathy and viewing situations from different angles
- Teach each skill in different possible contexts and in as many ways as possible

(DAI, 2013)

Remember, a child with dyspraxia would if they could, but they can't!



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