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# Understanding and Supporting Children affected by Dyspraxia DCD in Early Years

## Guidance for Teachers



Sponsored by the Scottish Executive Education Department  
within the SEN Innovation Grants Scheme



**Afasic Scotland**  
**Dyspraxia Foundation in Scotland**





These guidelines were sponsored by the Scottish Executive Education Department within a six-month project funded through the SEN Innovation Grants Scheme 2000-2001.

Developed for Afasic Scotland working in partnership with the Dyspraxia Foundation in Scotland, the Guidelines were written by Dr Christine Macintyre of the Faculty of Education, Edinburgh University. The Guidelines are based on the work of a group of teachers led by Dr Macintyre with input from parent members of Afasic and the Dyspraxia Foundation.

Afasic Scotland and the Dyspraxia Foundation in Scotland have a common interest in improving provision for children affected by Dyspraxia: Developmental Co-ordination Disorder in all its facets. Some of these facets affect speech and language while others affect motor skills and children may be affected by different or several aspects. These Guidelines focus on perceptual motor skills. It is intended that guidance will be made available shortly to support teachers and others working with children affected by verbal dyspraxia.

Afasic Scotland and the Dyspraxia Foundation in Scotland are grateful to Dr Macintyre and to the teachers whose research practice has informed this guidance.

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## SECTION 1 DYSPRAXIA: Developmental Co-ordination Disorder

### A) Living with Dyspraxia:DCD

First of all, let's consider some of the things parents, teachers and the children themselves say about what it's like to be affected by Dyspraxia:DCD.

#### Parents say:

*"Right from the start I knew there was something wrong because Ian was so irritable - he wouldn't feed and he was floppy - but no-one would help - I was just told I was an overanxious mother. Then later, when I asked my G.P. if it could be dyspraxia, he said, "What's that?" When nobody would explain what was wrong, I thought there must be a major illness looming - I was terrified and felt so alone."*

*"Steve is such a bright lad but there's lots of things he should be able to do and can't. His reading age is well above average but he can't write his stories down - or at least not so that the teacher can read them. He can't tie his laces yet and he's nearly eleven. We are hoping the Secondary school will allow velcro on shoes and doesn't insist on ties - otherwise he'll just not cope!"*

#### Teachers say:

*"For most of the day, Adam clatters around, bumping into everything and everyone, spilling water when it's painting time and generally making a mess. He's a bright lad, but so uncoordinated and untidy. In the classroom other children take over and do things for him which doesn't really help Adam, but I don't know how we'd cope otherwise. This is a nice class and they often say, "Never mind it's just Adam," but I've been hearing tales of taunting in the playground and the head teacher is investigating that...."*

*"Send Harry for a message? Never! He'd get lost and never come back. He has no sense of time or direction. He's always last and sometimes he gets very depressed. When that happens he can lash out or sulk. Generally he's a nice enough lad but a huge responsibility to have in class for I have to watch him all the time!"*

#### Children say:

*"No-one will let me play. I want to play football but they'll only let me be a goal post - for 45 minutes too - it's not fair." (Graeme age 8)*

*"I can't hear the teacher for there's a buzz and everyone answers before me anyway, so what's the use?" (Amy age 10)*

*"They tell me I'm stupid - maybe I am? I know what I want my hands to do but my writing is terrible. The worst in the world! I don't want all these squiggles but my pencil just won't go the right way." (Jake age 7)*

*"There's another party and I'm not invited again Mum. Why not?" (Paul age 7)*



*"I can't do it again - I just can't - I hate school - I'm always last and I can't hurry up any more. Why do I have to tell them things twice or even three times? Why do they not know what I say?" (Miriam age 6)*

*"I wish I had a broken arm instead, for nobody knows anything about Dyspraxia"*  
(Andy, age 9)

**And so.....**

## B) What is Dyspraxia:DCD?

Dyspraxia: Developmental Co-ordination Disorder is a complex condition with many signs and symptoms affecting every facet of the children's lives (See Appendix 1). Interpreting the name itself, i.e. dys = faulty and praxis = the ability to use the body in a skilled way may be helpful because it places this syndrome alongside dyslexia, dysgraphia, and dyscalculia, i.e. other 'dys' conditions which often share many of the same difficulties, but it doesn't encompass the wider implications of having the condition. The Dyspraxia Foundation (1999) however, offers a more comprehensive definition, describing dyspraxia as,

*"An impairment or immaturity in the organisation of movement which leads to associated problems with language, perception and thought."*

Indicating that the condition which first shows itself in the perceptual-motor or movement field may impact on the cognitive, communication, social and emotional aspects of development as well.

Before considering the condition further five very important points, must be made:

- *Children with dyspraxia are found across the normal intelligence range*

These children do not have global developmental delay. There is always a discrepancy between their 'intellectual I.Q.' and their 'performance I.Q.' (American Psychiatric Association, 1994). Children who do have global developmental delay can benefit from the activity programmes, but strictly speaking, they do not have dyspraxia.

- *Different children have different blends of the symptoms at different levels of intensity.*

This makes diagnosis complex. Careful observation and recorded assessment of the children's movement patterns in different environments is essential, for the most effective remediation will be specific to the difficulties that are displayed.

- *These children look just the same as other children. They have a 'hidden handicap' (Kirby, 1999).*

In common with other children who have a 'hidden handicap' e.g. speech and language impaired children, these children are often denied the sympathy, understanding and patience that they need - hence the child who would have preferred a broken arm! If they are 'good' children causing no fuss, their difficulties can be overlooked and some, because they're bright, will find ways to disguise the fact that they're not coping. "It's alright," said Mark, who had difficulty writing legibly "I tell him the answers and he writes both sets down!" Any kind of 'not being able to do' is difficult, but being able to run and jump and ride a bike is terribly important for children. Movement difficulties can't be hidden away - they are immediately spotted by other children and so those who don't achieve the stepping stones e.g. being able to tie their own laces or being able to remember things, can be teased and bullied as a result. This impacts cruelly on their self-esteem.

- *6-10% of children have some degree of Dyspraxia*

This means that there could be three children in every class. While teachers have to be able to recognise the varied symptoms and take steps to help; in more severe cases they must recognise when help from physio, occupational or speech therapists must be sought and press hard for help. On the other hand, they must be wary of labeling every child who is occasionally clumsy or forgetful as 'dyspraxic'. Children with dyspraxia have a consistently low level of 'doing' which is at odds with the standard of their other work. More boys than girls have dyspraxia, i.e. a ratio of (4:1), but when

girls do have it they tend to be more severely affected.

- *“Dyspraxia is a developmental condition and the comorbidity with autistic spectrum disorders, Dyslexia and Attention Deficit Hyperactivity Disorder is high. .... Problems commonly associated with Developmental Co-ordination Disorder .....may include Phonological Disorder, Expressive Language Disorder and Mixed Receptive Expressive Language Disorder” (Portwood 2000)*

This comorbidity is recognized by others:

*It is very difficult to find the ‘pure’ child (Kirby 1999)*

But, while recognising the complex implications of comorbidity, there is a need to respond to the needs of individual children.

*Nonetheless, these children can be helped (Caan 1999).*

This is a positive statement which has to permeate teaching. These children know that their performance on certain tasks is low although they may not understand why. The oral work of dyspraxic children is almost always of a much higher standard than their written work. This is because development is cephalocaudal or head to toe and proximodistal or centre of the body to the periphery, and so control of the extremities is the last thing to be developed. To allow these children to be successful, substituting oral storytelling for story writing or having the children tape-record their stories so that they can be written a few sentences at a time, are useful strategies. They can also demonstrate their knowledge more easily in discussions and debates.

Why is it essential to plan a range of strategies so that these children can demonstrate the skills and knowledge they have? Because children as young as six evaluate themselves globally. They don't think, “I'm no good at writing or drawing,” they think, “I'm no use at all!” This has to be averted at all costs. Teachers, knowing the concentration and effort most dyspraxic children put in, have to be alert to any kind of progress and offer immediate praise so that the children are encouraged to continue. Parents are anxious that teachers don't ask for untidy work to be done again. They know that repetition usually means more failure and this is devastating when the children are likely to be trying just as hard as they can. Chesson (1990) explains that these children *“have a very tiring day.”* There are different reasons why this should be so.

## SECTION 2 DYSPRAXIA DCD: Causes, signs and symptoms and strategies to help

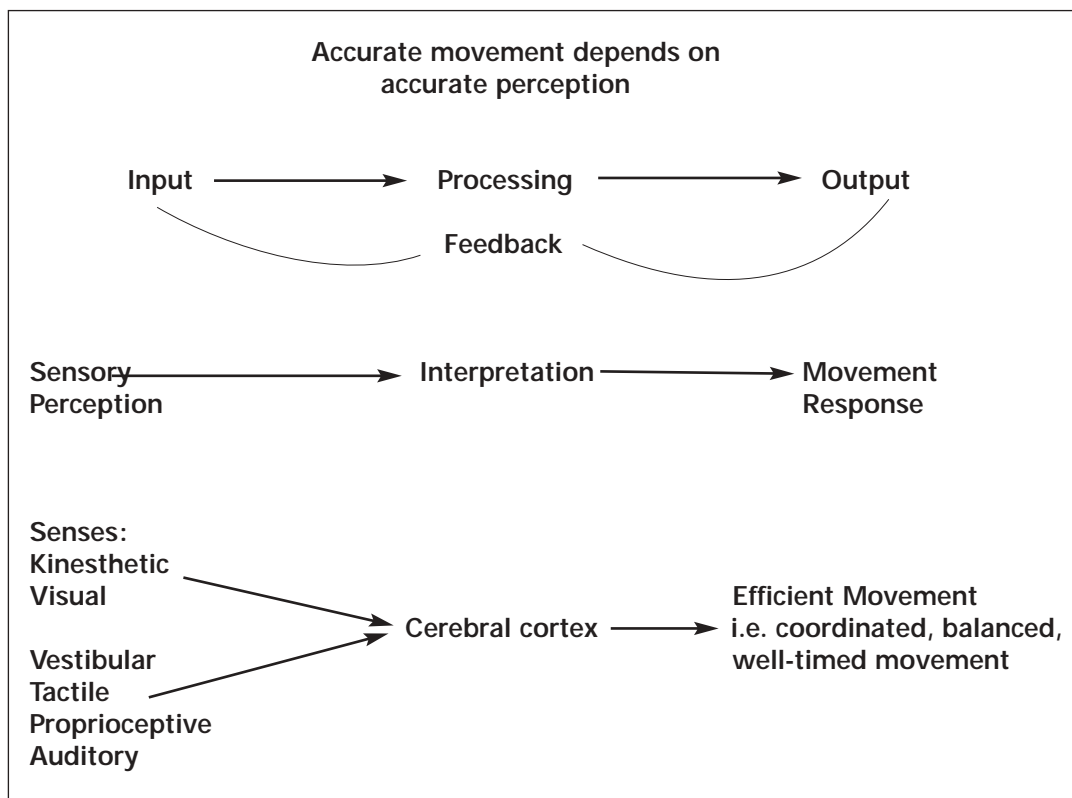
### A) Possible causes and appropriate strategies

Four theories have been put forward by researchers as possible causes of Dyspraxia:DCD

- "Faulty" or poorly integrated sensory perception
- Lack of reinforced pathways in the brain
- Retention of primitive reflexes
- Dietary deficiency

#### 1) 'Faulty' or poorly integrated sensory perception

This means that the messages which the children receive from the environment through their senses are flawed in some way and this sets off a faulty chain of analysis and feedback which in turn compounds a problem which may manifest itself in a number of ways



The text will consider some of the more common problems. However, for a fuller account see further reading in the Bibliography

**a) Visual and auditory difficulties**

**i) Distractibility leading to poor concentration/ short term memory**

Children with dyspraxia very often find it impossible to cut out visual and/or auditory 'distractors' from the environment. While other children learn to home in on important signals, those affected by dyspraxia can't ignore other distractors, e.g. leaves against the window, children passing by, even the noise from a classroom computer can irritate and distract.

When children 'have' to stop and look elsewhere or when they constantly hear other sounds instead of the teacher, their concentration goes. Some 'noise sensitive' children will give up the struggle to hear clearly and find solace in their own imaginations. When teachers say, "He can't concentrate" "He could do it yesterday, why not today?" or "She is away in a world of her own," it may be worth looking for a reason.

**Strategies to help**

- \* Sit the child away from windows, pathways and computers, i.e. where there is the least amount of classroom bustle.
- \* Choose a quiet, friendly child to sit by the dyspraxic child - sitting alone will increase the child's isolation which may already be a problem.
- \* Try to intersperse short spells of concentration with 'release' time such as choosing time or playing, even 'dreaming' time.
- \* Make 'a quiet space' and allow affected children to work there.

**ii) Tracking difficulties**

Another symptom of dyspraxia which results in classroom difficulties is poor visual and auditory tracking. The former affects competences like copying from the board into a jotter on a flat desk or following the flight path of a ball or understanding gestures which convey meaning in teaching. The latter can mean difficulty in listening and in following instructions, especially if teachers move around into different noise zones as they speak. Children with these difficulties can be seen copying the reactions of others rather than initiating things themselves and again this may explain their delay in responding to questions or instructions.

### Strategies to help

- \* Have key instructions on the board or posted up near the dyspraxic child so that reminders are near at hand. This saves constant interruption when the child has forgotten what to do next.
- \* Give the child an inclined board for both reading and writing. This reduces the amount of visual change necessary in moving from the vertical to the horizontal and helps finding the place in the text
- \* Provide worksheets whenever possible to save the vertical - horizontal shift
- \* Allow the child to use a marker or a finger while reading otherwise eyes may jump lines. Larger print and fewer words on the page helps some children.
- \* Give the child squared paper for maths to help keep figures in the correct columns. Some benefit from a card with a window cut out to prevent eyes straying and becoming confused with the other figures. Lined paper for writing with start and stop points marked, can help too.

### iii) Visual blurring

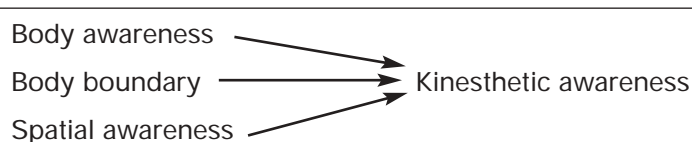
Some children see print as distorted or blurred especially black type on white paper. Other children may see the print moving or doubling to one side.

### Strategies to help

- \* Check there is no glare from windows or lights adding reflection to the problem
- \* Try a coloured overlay to see if that eases the problem.
- \* Ask the children to describe what they see and ask for specialist help.

N.B. These difficulties may be spotted by opticians or audiologists if the children are tested for functional vision or hearing but not unless.

### (b) Kinesthetic awareness difficulties



Dyspraxic children have a poor kinesthetic sense which means that they don't have an accurate sense of where their body parts are in relation to each other or where they are in the space around them. This makes putting them in the correct place problematic especially if this has to be done quickly. Movements which are automatic for other children have to be planned using the other senses e.g. dyspraxic children

may not feel where their feet are. These children have poor proprioceptive sense. They must look to check and so any alteration in stance takes time. This is often combined with a poor sense of body boundary, i.e. difficulty in judging distances between themselves and people and objects in the space around them. Not surprisingly, they bump into things and people causing unintentional hurts and people to be annoyed. There may be a tendency to break things - because if the table is really further away than it seems, then the cup full of juice is going to land on the floor. As a result, dyspraxia is frequently referred to as 'Clumsy child syndrome'.

### Strategies to help

- \* Have lots of games e.g. 'Simon says'. Older children can be the one 'out front'.
- \* Work with the P.E. teacher to carry out activities from the perceptual-motor programmes (section 3). The strategies offered under 'balance' (below) are also useful.

### c) Proprioceptive difficulties

Many children, especially those with dyspraxia lack this sense of placement. If they want to step up onto a chair, for example they will look to check where the supporting foot is in relation to the chair - they won't be able to sense its position. This is because their proprioceptors, or nerve endings in the muscles and skin are not relaying information as they should. Lots of actions are affected. Sitting down without looking involves a judgment of where the body is in relation to the chair and this in turn tells how much strength or release of strength is required to carry out the movement efficiently. A child lifting a cup needs to know where and when to curl his fingers round the handle and how much strength to use so that the liquid does not spill. Those with efficient proprioceptors will manage this easily, almost automatically, but children with difficulty will clutch the cup against themselves for extra support and have to look closely every step of the way.

### Strategies to help

- \* In the classroom 'feely bag' kinds of activities
  - feeling a rough shell and a smooth piece of seaweed
  - rubbing different textiles
  - covering hands with a cloth
  - make the cloth into a puppet which moves.

### d) Balance difficulties (Vestibular sense)

Balance is a fundamental and central movement ability. It controls the body in both movement and stillness. It depends on having accurate vestibular signals from the ears and in being able to make correct visual / spatial judgments, e.g How far am I from the wall? How quickly do I need to move? How do I align my body to sit or stand well? Most children make these decisions without conscious thought, but dyspraxic children don't. They need to teach their bodies how to achieve balance through lots and lots of regular practice.

## Strategies to help

- \* Constantly check on the children's posture. Take a moment to ask all the class to 'stand tall' at the start and end of each lesson - it's a healthy habit for all children! Make them aware of breathing deeply and evenly at the same time.
- \* Make sure the dyspraxic children have seats and desks of the correct height. Poor balance can cause children to tip off seats. Check the levels of toilet seats too, for balance is important if accidents are to be avoided.
- \* Have a variety of apparatus with graduated balance challenges, e.g. some benches broad side up and others narrow in the gym (see p26). Whenever possible, provide support e.g. handrails on stairs or ramps for severely affected children.
- \* Allow children to sit to do things like changing shoes or packing schoolbags.

N.B. Think ahead to discover where balance challenges are difficult and try to reduce the environmental demand. Dyspraxic children may not realise their own limitations so teachers have to recognise that they may attempt movements which could be dangerous! And even more than others, these children shouldn't run near glass doors or protruding objects. Often physical 'boundaries' e.g. benches broadsides forward or even ropes over skittles need to be set up to provide an extra visual cue of where to stop.

### e) Tactile difficulties

Firstly, some children can't bear to be touched. Even brushing lightly against them, can cause them to overreact, sometimes lashing out - to the dismay and surprise of the offending adult or child. Sometimes they can't endure taking hands in a circle, and the other children naturally feel rejected as they don't understand the source of the refusal and take it personally. This same over-sensitivity can cause ructions at hair cutting or nail clipping times as the sensations are felt much more severely than normal. Some children cry with the hurt of it all. Wearing a watch can only be tolerated if the strap is smooth and made of leather - not plastic as it is more likely to stick to the skin. Some children wear their socks inside out as the seams irritate them all day. This extreme sensitivity can manifest itself as allergies in some children.

The second 'touch difficulty' comes when children need hard feedback from the environment. The children are asking their proprioceptors to do their job and send them messages which let them orientate themselves in space.

These are the children who thump around. Everyone says, "They don't know their own strength". The child who is constantly out sharpening his pencil may be one - because when he pressed too hard the lead broke! Maybe a harder lead pencil or a ball pen could be the answer?

Combine this 'too fast and too strong' approach with distance misjudgments, and you can understand why teachers don't give dyspraxic children responsible jobs which most children love to have. The child who bumps and clatters can irritate other children too and when toys are broken or precious things are spoiled, patience does run out!

So, although taking hands in a circle or in a line may sound a simple instruction, to a dyspraxic child, it can hold miseries best avoided and repercussions which are extremely hurtful, especially when they are not understood.



## Strategies to help

- \* Understand that the child is not deliberately making a noise or breaking his pencil or other resources - he has a poorly defined sense of the amount of strength that is required.
- \* Provide HH pencils that don't break or soft lead ones if the child leans so hard that the paper tears.
- \* Avoid 'take hands in a circle' kind of activities.
- \* Sit the child beside someone who is not likely to encroach on personal space!

## 2) Lack of reinforced pathways in the brain leading to clumsiness and delay in responses

This symptom points to an immaturity in the cerebral cortex. Early movement experiences have not caused enough 'useful' pathways in the brain to be reinforced and so messages or signals from the environment must search through a mass of dendrites and may use a myriad of pathways instead of selecting only one.

This explains why dyspraxic children use lots of extraneous movement - messages may be travelling to all four limbs instead of the one or two necessary to complete a task. (Assessments which ask the children to walk on the outside of their feet show them curl their arms in front).

There may also be delay at the synapses, i.e. the points where 'instructions' cross from one axon to another. This explains the delay in responding to instructions which many dyspraxic children show and their poor coordination when different body parts have to be used together or in sequence.

In young children, myelination, i.e. the protective covering of the axons may not be complete until age 6 or so. This means that nerves may not be insulated from one another and so 'messages' may be confused. This explains why young children tend to be clumsy and also why some professionals are reluctant to give an early diagnosis of dyspraxia. It may help to explain that in multiple sclerosis, the myelin sheath protecting the nerves is breaking down and lack of control of movement results. This is the opposite process to the build up of myelin which occurs in childhood.

### Strategies to help

- \* Allow the children extra time to complete tasks.
- \* Whenever possible keep to the same routine so that the dyspraxic children have the security of knowing what comes next.
- \* Give advance warning of any changes to prevent confusion and distress, but not too far in advance or the children will be sure to forget.
- \* Provide different kinds of resources e.g. pencil grips - let the children find which best suits their hand, from many shapes and sizes available. An elastic band can indicate where the pencil should be held and be less obtrusive than the commercial kind - the 'best' choice depends on the child.
- \* Gently support the child if extraneous movement is causing difficulty (but see the notes on touching children).

### 3) Retention of primitive reflexes preventing the acquisition of more sophisticated movement

Researchers at the Institute for Neuro-Physiological Psychology have developed a *'non-invasive approach to solving learning and behaviour problems'* (Blythe, P., Goddard, S.) They claim that *'detection and analysis of primitive and postural reflexes can indicate the developmental level of a child's performance'*. They have found that some children have retained primitive reflexes and that these are preventing the acquisition of more sophisticated movement patterns. If this happens:

*'Later skills remain tethered to an earlier stage of development and instead of becoming automatic, can only be mastered through continuous, conscious effort.'*

The remedial programme is based on the individual profile of aberrant, i.e. retained reflexes and it works to inhibit these so that more efficient and effective movements may take their place. Certainly the effects of retained reflexes as described by Goddard (1996) match the difficulties dyspraxic children display.

### Strategies to help

All of the teaching strategies outlined in these guidelines will help children if their reflex profile is marginally abnormal; children exhibiting greater problems can benefit from these classroom strategies alongside more specialist help from P.E. teachers who are willing to adapt their programme. Children who do not have dyspraxia will benefit too! (See section 3.)

**NB. If the child has a cluster of aberrant reflexes, the child requires a reflex inhibition programme if long term improvement is to be sustained. Such a programme has to be carried out by therapists qualified in that field.**

### 4) Dietary deficiency

Recent research into the effect of deficiencies in long chain fatty acids holds hope that specific dietary supplements such as fish oil or evening primrose oil may reduce

difficulties within a range of disorders including dyspraxia (Dr Alex Richardson 2000). In a small scale trial, children were found to have reduced symptoms in A.D.H.D. and in dyspraxia, but of course medical guidance would need to be sought before any supplements were tried. The children also showed improvement in reading.

A larger scale double blind trial is being planned with Dr Madeline Portwood and it is hoped to bring the initiative to Scotland (Dr Christine Macintyre at Edinburgh University). Further information can be found at [www.dyslexia.org.uk](http://www.dyslexia.org.uk) See also details in the bibliography.

## **B) Signs And symptoms of Dyspraxia DCD: Strategies to help**

### **1) Low muscle tone leading to poor coordination.**

One of the earliest indications that something is amiss, can be in verbal dyspraxia when the child's lack of control of the speech apparatus causes articulation problems. Speech therapy is vital as not being able to communicate easily impacts on both social interaction and language development. And if the muscles in the mouth don't allow clear speech, it is possible that chewing will be difficult too. Many fine motor skills can be affected e.g. writing, drawing and using a knife and fork. Being a 'messy eater' can mean not being invited to parties and siblings may be embarrassed to bring their friends home. This can build resentment and alerts us to some of the social implications of having dyspraxia.

Another difficulty arises if the muscles in the bladder are low-toned, for then toilet training is likely to be difficult and delayed with many lapses, especially in times of stress. Children may forget to go or get little warning and so teachers have to remind and/or allow immediate access to toilets - especially if difficulties in undoing buttons and zips compound the problem. All of these 'public' difficulties have a hugely negative impact on the child's self-esteem, so constant vigilance to prevent them occurring is essential.

On the other hand, if the large muscle groups are low-toned, then the children will have impaired gross motor performance. They *will* walk, run and jump, but these basic movement patterns tend to be achieved very late, just within the limits of 'normal' timing and with a low level of skill. Combining actions so that sequential movement is fluent is often very difficult.

Many children later diagnosed as dyspraxic never crawl because the required skills of coordination, sequential movement and balance are just too difficult. Unfortunately this lack of crawling practice (which involves balancing in a safe prone position, stretching out in different directions and so learning about positioning in space as well as learning to coordinate all four limbs), affects the acquisition of other skills such as throwing, catching and climbing, because they also need balance and timing and spatial orientation. Some researchers claim that this early lack of sequencing practice hinders reading, pointing out that many dyslexic children are 'non-crawlers' too (Goddard 1996).

#### **Low muscle tone can affect:**

- i) Articulation and the ability to make one's needs known - frustration results with some children refusing to speak at all.

### Strategies to help:

- \* Stay calm . Transmit the message that you do have time to listen.
- \* Try to interpret non-verbal cues to prevent the child having to repeat what was said. Often children can understand when adults don't, so observing other children's responses and reactions sometimes helps.

- ii) Sitting or standing still for any length of time - the body gives in to gravity and slumps.

### Strategies to help:

- \* Provide support for the child - a beanbag on the carpet or a back support, e.g. allow the child to lean against a wall.
- \* Try to avoid having the child in one place for a long time.

- iii) Leaning over a desk to write -sustaining the angle is difficult - the child flops onto the desk and turns the head towards the page.

### Strategies to help

- \* Provide an inclined board for the child's desk. This helps poise and therefore shoulder, hand and finger control as well as tracking from the board. The height of the desk must be suitable, (elbow height ) and the chair should allow the child's feet to be placed on the ground. This helps stability and balance. This also helps the children who dribble if they have to lean forward over their work. This is due to poor muscle tone in the mouth.

- iv) Balance of any kind, e.g. standing on one leg to put trousers or socks on; any rolling or turning action can be confusing as 'spots' which give stability cues are lost.
- v) All gross motor skills e.g. riding a bike, swimming, rhythmical activities like dancing.
- vi) All fine motor skills, e.g. controlling a pencil, threading, picking up and replacing objects accurately, using a knife and fork, fastening and undoing buttons.

To help these last three, teachers should work with P.E specialists on daily perceptual-motor programmes (see Section 3). If this is not possible, the activities outlined in these guidelines can be used with the whole class. Three points are worth noting:

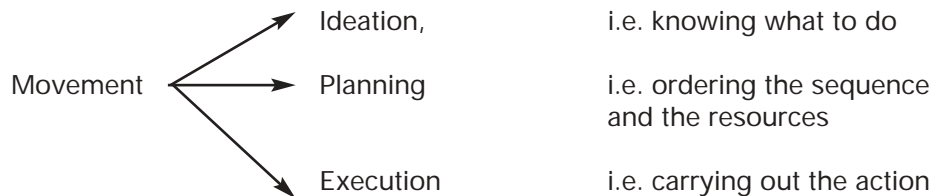
- The activities in these guidelines will not harm any child. Even if the programme is general rather than specifically geared to the children's needs, it is much better than not involving the children in movement at all.
- Regular practice makes a huge difference to competence and confidence.
- Participating in activities which are fun to do and where the children can feel they have been successful, helps boost self-esteem. Sometimes children with dyspraxia can 'help the younger ones' and so get extra

practice without realising that the activities are really too basic for their age group.

Although dyspraxia is most often seen as a motor problem, it can permeate all aspects of living and learning. 'Not being able to do' all the motor skills which are valued by youngsters means that affected children are left out; they are rarely chosen to be in a team and are then denied the extra practice they need. Very often these children feel they have disappointed their parents and teachers and very often they despair.

## 2) Planning and organizing personal movement

Moving effectively and efficiently in different environments requires more than having the physical abilities to 'do'. There are three aspects involved in moving well, and only through careful observation will teachers be able to tell which aspect is causing problems. Obviously this is essential if help is to be targeted correctly. Movement involves three different stages:



Some children can be seen wandering around aimlessly or copying others because they have no idea what to do. They need lots of suggestions to help them make plans. Other children know what they want to achieve, but can't organise themselves or their equipment to allow it to happen. A good example is the child who knows he has to get dressed, is physically able to put his clothes on, but has no notion of the correct order, so pants go over trousers and socks go over shoes. In school, putting homework books into trays and remembering what to do next needs a vast amount of concentration if it can be done at all.

When teachers observe children 'not being able to do' any activity, a first reaction may be to demonstrate the skills required again. This will only be helpful if it is the 'execution' part which is faulty. If the planning and organising aspect is the problem then guidance must relate to the process rather than the end product, or confusion and possibly wasted effort will result.

Any kind of complex instruction of the "Do this and then that" variety is confusing. This is why parents urge teachers to 'break down learning tasks into manageable bites' and to 'give one instruction at a time'. They know how short term memories can only retain a limited amount of information. In a class of thirty or so pupils, it is difficult for a teacher to give the amount of attention to detail this requires. Ideally there should be an auxiliary or a classroom assistant to help. The best way to achieve this is to provide 'evidence' of the child's difficulties and the extent of individual support required apart from differentiation of the curriculum, so completing diaries or schedules, time consuming as they are, may be worthwhile if they result in extra help for the teacher and the child.

## SECTION 3 PERCEPTUAL MOTOR SKILLS

### A) Developing Perceptual-motor skills

Any of the activities which promote perceptual awareness and help a child develop the ability to move more effectively and efficiently can form part of a helpful programme. The activities should be chosen so that the child, with some effort and some practice, can be successful. A good standard of a simple movement pattern with understanding of how that standard was achieved is the main aim. It is important that children recognise what they did, i.e. how their spontaneous and possibly inept efforts were altered to allow them to be successful. If this happens, there is more chance of the children being able to transfer or at least adapt these movements so that they are equally effective in different environments.

Changing the environment can add lots of challenge to a simple movement activity. In this example changing the apparatus arrangement for jumping has provided increased levels of difficulty for heights, then spacing and then directions change. All of this makes adjusting the body weight necessary as well as the speed and effort put into the movement.

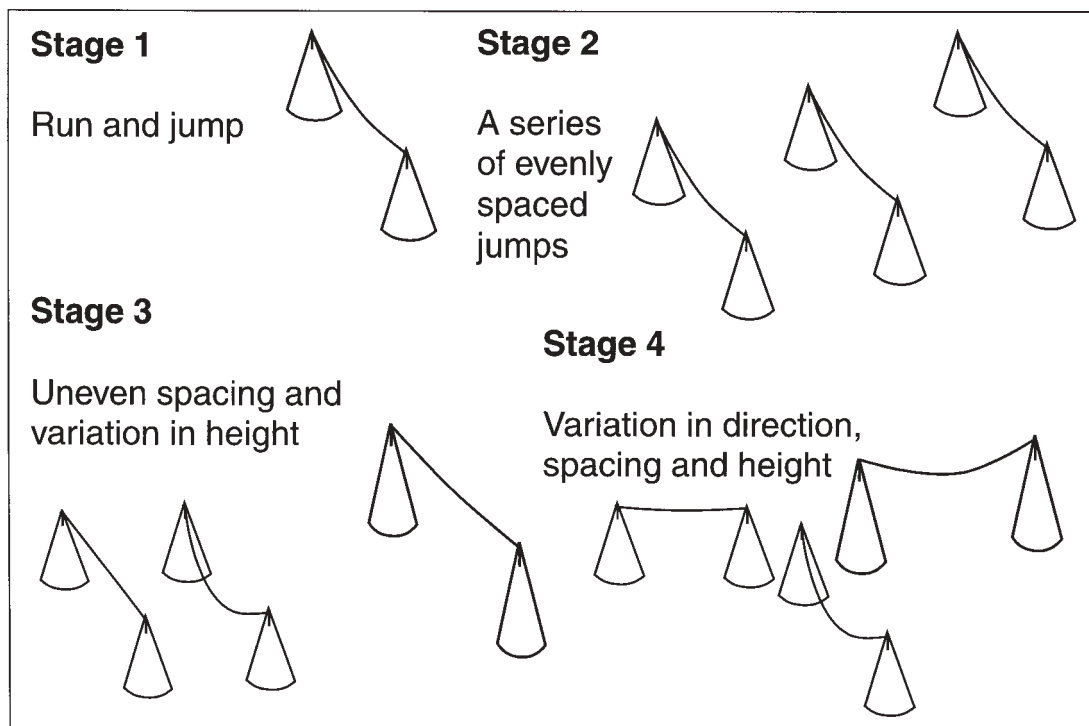


Figure 1

## 1) Providing variety in Movement

How can the children be kept interested when movement isn't their strength?

A variety of activities helps sustain interest and motivation - these can be chosen from

- expressive movement activities, e.g dance and dance/drama
- movements to promote kinesthetic awareness, poise and balance
- movements to develop a sense of rhythm
- planning and organisational activities, e.g. problem solving challenges
- ball skills

### i) Expressive movement activities

Expressive movement gives a good start to children with poor coordination, because in dance or drama types of activity, there is no need to control equipment as is the case with ball skills and there is no large apparatus to frighten nervous children as sometimes happens in gymnastic activities. The children have only to cope with their own bodies in space and some children find this quite enough.

In the nursery or early primary classes, having music with a regular beat e.g. Scottish country dance music, helps the children listen and appreciate the rhythm. They can clap for 8, walk for 8, clap for 8, swing their arms for 8 and skip around for 8 - all sorts of sequences which are fun to do and which don't carry any threat of getting it wrong!

With slightly older children introducing *doe-ci-doe* i.e. moving towards each other then passing back to back, helps children with poor body awareness of the backs of their body. Square dance music gives a lively beat and is energising!

Expressive movement is a good medium for exploring rhythm and is also very helpful for learning to remember movement patterns. The freedom within expressive movement means that a rhythm can emerge as a dance or drama sequence takes shape. No external rhythm is imposed as is the case when music or poetry acts as a stimulus - the intrinsic rhythm can come from the type of movement chosen and develop as children work together to compose a dance phrase. Once this rhythm is internalised, it can be practised as in any other activity with the children saying any words as they move. Often this kind of movement experience can be linked with storytelling or story writing. With dyspraxic children the teacher has to remember to make the links because these children tend to compartmentalise their learning more than other children.

Most children enjoy and learn about expressive movement from composing a dance based on their own selection of action words, such as 'dashing together, swirling round, then gently sinking to the floor'. As the children show the qualities of the words through their expressive movement, an intrinsic rhythmic pattern emerges and with practice, they become able to say the action words as they dance. This activity based language learning can be a help for classroom storytelling or writing activities but teachers have to remember that transfer of learning is not easy for children with poor short term memories and so lots of recap, pointing out where the links occur is essential if full benefit is to be gained. The youngest children enjoy acting out the storylines of well known fables, e.g. Jack swinging an axe to cut down the beanstalk, even moving like the Tellytubbies can be fun and make children aware of the contrasts in moving in different ways.

Expressive movement helps the development of gross motor skills when sequences include the basic movement patterns. If they are given expressive names, then as children experience the different qualities within the movements, their vocabulary develops too.

## ii) Expressive movement patterns

<b>Walking</b>	becomes - creeping or sauntering or prowling or stalking.
<b>Running</b>	becomes - dashing or darting or rushing or zipping or rushing .
<b>Jumping</b>	becomes - bounding or exploding or popping or leaping .
<b>Gesturing</b>	becomes- pointing or beckoning or turning or twisting or crumpling or stretching or sinking or growing, i.e. any action which happens 'on the spot.'
<b>Being still</b>	becomes - freezing or holding or waiting or pausing

If the teacher or the children themselves select one word from each type of action, they can be ordered into an expressive movement phrase. (Action Words Chart Appendix 3). One example could be,

"Dash and freeze, crumple and pop pop pop!"

Analysing the expressive content of that phrase shows that contrasts in speed and distance are built in and movements on the spot give the children time to "get ready" for the next action phrase. (Lesson Plan. Appendix 4).

**Dash** - moving quickly and lightly, skimming the floor for a short distance (to retain the quality of the action).

**Freeze** - stopping suddenly with control - (up high because of the next action).

**Crumple** - sinking slowly with either a rounded or jagged action. Gathering strength - on feet ready to

**Pop** - exploding quickly, arms moving out from the centre of the body. Alternatively, 'Popping' out to the original position ready to begin again. This might use three or four 'pops' depending on the available space. This could give balance problems but its fun to try!

The dance can be built into a duo with the children coming together and apart so that they develop an awareness of someone else's movement and adjust their timing and use of space to that. In the older classes, four children can dance together - using the phrases practised in twos, adjusting their use of space and so composing a group dance, perhaps doing parts where everyone moves together or with actions done in sequence. Again awareness of other children, memorising the short dance and retaining the quality of the chosen movements provides an enjoyable challenge. Remembering what comes next helps planning and sequencing.

The children should be encouraged to select actions which allow them to show contrasts for these blend easily and very satisfyingly into a rhythmical dance.

Setting the dance to words, e.g. *Swirl and hold, swirl and hold, creep away, creep away, pounce and freeze*, and repeating the words as the dance progresses, gives time for the intrinsic rhythm to be felt. If some children find swirling difficult, they can take quite a time on the 'hold' so that their balance is re-established ready for the next phrase.

To give the dancers more travelling space, the group can be subdivided and then the children who are watching try to guess the words the dancers are demonstrating (and whispering!), or some try to accompany the dance with percussion, (not always the music makers providing the stimulus for the dance because this would be another kind of experience where the rhythm was imposed). If this happens, then everyone is able to participate and learning words comes naturally alongside learning about the dance.



### iii) Drama and Movement

Once lots of quality words are understood, acting out parts of stories can be fun, e.g. *'The giant stomped into the castle,'* or *'The tigers prowled through the long grass,'* for the younger ones, and *'The lightning flashed across the sky,'* or *'The smoke swirled from the bonfire'* or *'The sea crashed onto the rocks'* for the older group. The list is endless and after 'moving to the words' the children should understand their meaning, where they might be applied and hopefully they will retain some to use in their storytelling or imaginative writing!

Teachers will find that percussion is very useful for accompanying movement. Children with dyspraxia will need time to react so the tambourine with 'jingles' gradually slowing is more appropriate than one loud timbre sound for 'stop'. Similarly Indian bells with their longer tone give the children time to gather their strength and so control is easier.

## 2) Perceptual-motor Programme

It is vital that the children are constantly asked to feel a good sense of poise and extension as they move and when they are still, for this promotes body and spatial awareness. It also helps breathing which in turn helps movement to be controlled.

Begin and end each session by an activity which asks the children to think about the alignment of their body and where each part is in relation to the other parts, e.g. "Stand well. Push the back of your head high. Think about your shoulders. Are they relaxed? Shrug your shoulders and let them go - and again. Swing your arms forward and back and hold your hands into your sides. Stretch up to the ceiling and out to the side - wide as you can - wiggle your fingers and bring them in to your sides again. Is everyone steady...and still....and standing well?"

"Sit down with your legs stretched out in front. Use your hands to help you balance. Can you sit tall? Are your shoulders level? Can you feel the back of your shoulders? Now spread your legs out wide and swoosh then together again - and again....who is still sitting tall? Look at your toes. Point them down to the floor and pull them back (The youngest ones love to say, 'Hello toes, Goodbye toes as they do this). Now cross your legs over at your ankles. Make your toes point away and pull them back up. Change your legs over....Are you still sitting well?"

This detail has been set out to show that the movement is basic but is to be done well with emphasis on the children knowing where their body parts are in relation to each other, where they are in space and how moving one part affects the others. All the basic movement patterns should be encouraged for these are the times when difficulties are displayed, e.g. the child who has a simian (ape-like) walk or who stumbles and falls.

Lots of games which require control. e.g. walking tall and changing speed into jogging and slowing down again to stand well. The speed can be varied but always control in slowing down to stand well is emphasised.

Sideways rolling on mats is good for losing and regaining a sense of balance. Teachers should emphasise the long roll - 'Can you feel your toes as you roll? - push them out?'

It is also important to let the children choose their own speed. Teachers would also check that the children are able to keep their arms into their sides so that elbows are not bumped, i.e. that they know how to make themselves safe as they meet the floor.

Always finish by everyone standing tall. This is calming and gives each child a sense of poise and security which is what the programme is about. Be sure to tell the children what they have achieved each day and praise them for their efforts.

When planning a perceptual motor programme it is best to think of the coping skills children will need and try to include similar types of movements, e.g. picking up an object, carrying it and placing it on a bench or in a hoop on the floor can be quite taxing if balance is poor - this 'boring' exercise, which relates to many activities which are carried out in the home, can be disguised in the form of preparing apparatus for a game. The game is not important however, what is vital is that the children learn to adjust their body weight to cope with the object; that they learn to grasp and release at the right time; that they improve their spatial judgments about 'how far' and 'in what direction' and that they learn to regain their poise once the object has been released.

### i) Problem-solving activities.

Have lots of estimating games, e.g. How many long steps will you need to place the ball in the box? Which kind of ball will you choose if you are going to bounce a ball over the high skittle? (Probably a foam one would not rise high enough, the children might not have the strength to put a basketball over, an airflow one would be difficult to control, so a volleyball might be the most successful.)

The children can estimate and try!

Games which include 'space' words - e.g. Go under your partner's legs. Climb through the barrel, go onto the top of the box then jump down and come back to the start.

### ii) Listening to Plans

While all activities help 'doing' or the execution part of moving well, the other aspects, i.e. the organising and planning of movement have also to be considered. To achieve this it is a good idea to think of the children building sequences of movement so that they practise remembering what comes next. In these activities the main thrust is to have the children tell what they plan to do and how they are going to organise themselves or their equipment, e.g. "I'll do this and then follow with that kind of explanation - I'll put the bench near the box so that I can climb up.." At the same time teachers should encourage the children to do the movements well, but initially this would be less important than the implicit planning, resourcing and remembering the movement that they have chosen to do.

**Aim** - to get the beanbag or ball across the obstacle course and into the basket without losing it - and without touching the obstacles on the way

**Teacher asks:** "How are you going to tackle this?"

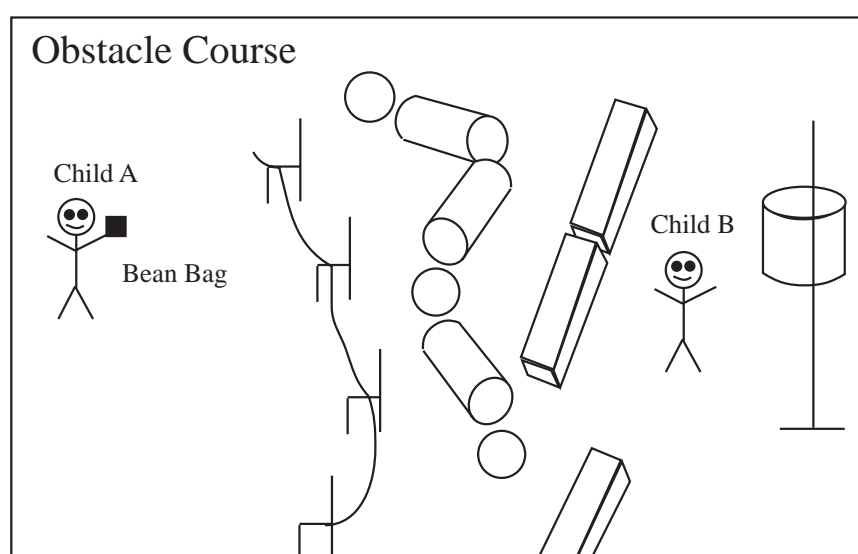


Figure 2

**Child explains:** "I'll go UNDER the rope, THROUGH the boxes, OVER the benches and put the beanbag UP and INTO the net."

**iii) Adjustments add challenge for different ability levels:**

The obstacle course can be simplified or extra challenges can be added

- Another child could guard the goal to add fun but make sure that the planning is made explicit first.
- Other children are the obstacles - perhaps sitting astride using their legs as scissors so that the child had to judge when to get through the barricade.

N.B. Even when the teacher would seem to be directing all the planning within these challenges, e.g. "Move along the bench on your front", there is still a lot of 'child thinking' involved in working out how this will be done.

## B) Observing movement

A key skill for teachers is the ability to observe accurately and plan learning activities on the basis of observations that are made. This is not easy, especially when observation concerns movement, because it is over in a flash and often takes place in group or whole class activities. However, teachers do identify difficulties and many say, "I know there is something wrong, but what?"

One good diagnostic strategy is to set up opportunities for the children to demonstrate the basic movement patterns. Using large apparatus as in the arrangement below can do this.

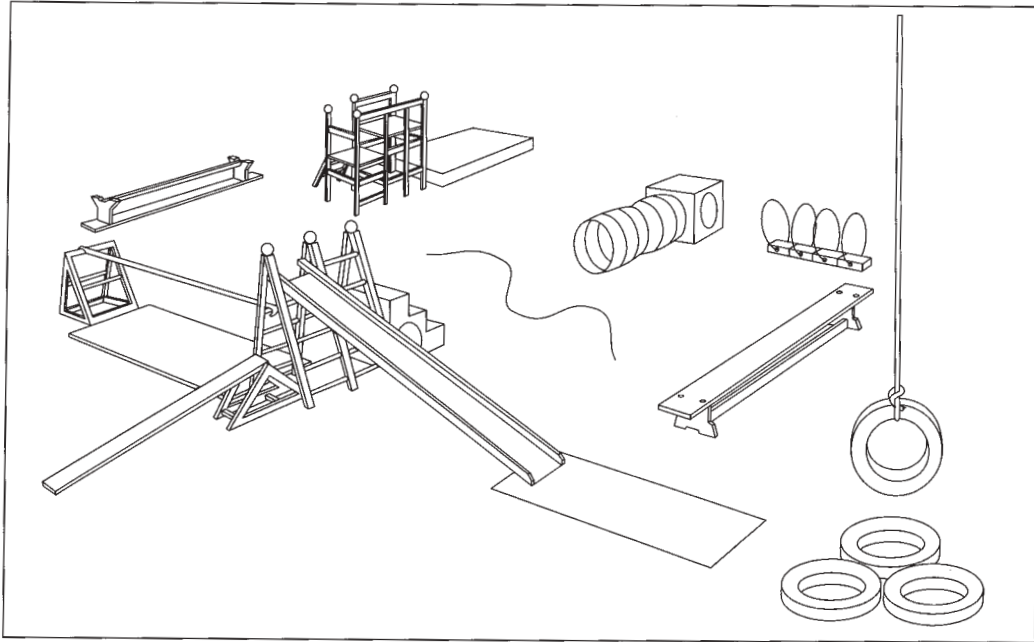


Figure 3

- Using large apparatus indoors or out of doors

An arrangement like the one above (Figure 2) allows children to demonstrate their competence in carrying out the basic movement patterns of walking, running, jumping swinging and climbing. A variety of heights and inclines means that there is no pressure on children to attempt movements beyond their capabilities. Teachers should stand near any piece of apparatus where jumping down is possible, just in case the dyspraxic children forget to take care or overestimate their competence. Light support can be offered but it is inappropriate for teachers to take the child's full weight unless an accident has to be prevented.

- Spacing equipment

There has to be room for the children to stumble and fall without harm so there has to be space between different pieces of apparatus even if this prevents a smooth continuous sequence of actions. Mats (crash mats for the climbing frame) have to be placed strategically and approach runs have to be planned so that one child doesn't cut across another's path. Of course some pieces of equipment will be more popular than others so rules about turn taking and spacing out have to be established.

As the children work on the apparatus asking them, "What are you going to do?" helps them pause and plan and shows whether they can plan or whether they are quite aimless in their approach. Of course the children have to have the words to explain. One teacher was told by one small boy "I'm going to do a fly" - and he did!

- **Observation Schedule**

If teachers suspect that a child has a difficulty then observation schedules can be used to pinpoint where, when, how often or indeed avoidance strategies which the children may have worked out for themselves!

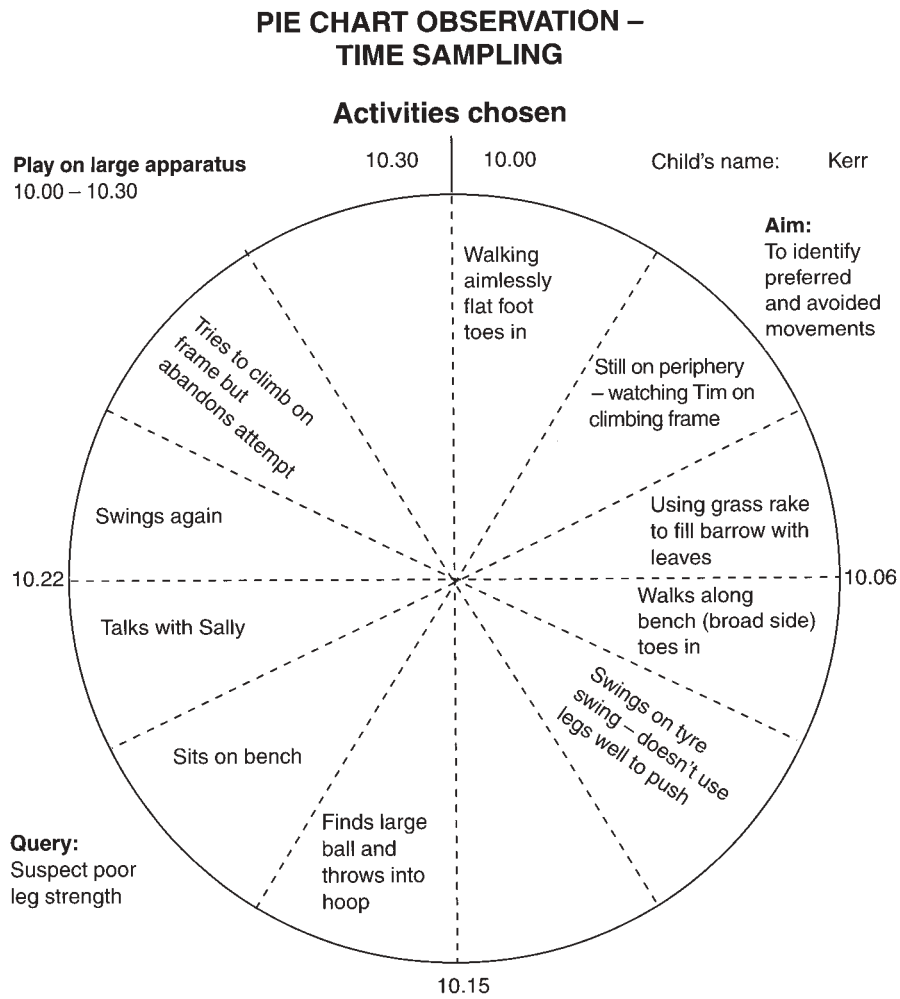


Figure 4

## **C) Favourite games and activities to help sensory difficulties**

### **1) Any poems or songs which have actions e.g.**

- **Simon says ' Do this ', ' Do that'.**

This helps copying, listening skills and body awareness. Teachers need to be sympathetic with the speed of the instructions -perhaps giving a warning 'mmmmm' before 'do that' so that the dyspraxic child has extra time to prepare.

- **'Incy Wincy Spider', 'Heads, shoulders, knees and toes', or 'In a cottage in a wood'.**

These games can be enjoyed by the older children if they are in a mixed age group and they feel they are showing or helping the younger ones. They are very good for finger dexterity and fitting the speed of the actions to the speed of the song as well as for body awareness.

### **2) Pass the parcel games.**

These help laterality, i.e. an awareness of 'passing to the side' and fine motor skills when the parcel has to be unwrapped. The children can sit and push the parcel round with their feet as one progression . This is difficult but fun for a brief spell.

### **3) Playing the piano or keyboard.**

This is very good for coordination and finger strengthening and dexterity.

### **4) Angels in the Snow**

Children lie flat on floor on their backs -

- a) Sweep arms and legs wide, then together - at the same time
- b) Sweep one arm and leg on the same side, then the opposite side, wide and together.
- c) Have children lying on their backs in a circle, fingertips touching to make an angel design. As the teacher says, "Swish, swish," the children in unison move their arms and legs to 'open and close' the star.

This is a very good way of helping children feel where the backs of all their body parts are. Old clothes help!

### **5) Sweets in the jar**

Guess the number of sweets or cubes in a jar. Unscrew the lid, tip them out and fill the jar again - minus one sweet for the guesser!

Holding the jar with one hand and unscrewing the lid is very difficult. At first the children will clamp the jar into their bodies for extra support but with practice should be able to hold it on the table to unscrew the lid.

### **6) Wind a lace round a bobbin**

This is very difficult - a real test of fine motor skill. All sorts of threading activities can act as precursors of this one, e.g a nail pattern in the form of a spiders web allows children to hold with one hand and wind wool with the other. This helps coordination and hand dominance.

## 7) Touching and Telling.

In twos children have to name the parts of their body that are being touched. The challenge is when they have to close their eyes so that feeling rather than seeing becomes the important sense.

## 8) "I draw a snake...."

In twos, one child draws letters or figures on a partner's back. The partner has to guess what they are. A good activity for phonics.

This can be made into a game where half the class sit in a circle with their eyes closed. The other half creep in unseen and draw their own initial on the backs. The sitting child has to guess who has "drawn the snake".

## 9) Tracking/copying

All sorts of copying activities help awareness of others, and spatial patterning.

- Sit facing child with two hands raised in front of each person. Draw a circle with one hand keeping the other one still. Draw a circle with the other hand, then try both hands.
- Drawing names in the air - with one hand then the other.
- To improve hip mobility and control, the children can lie on their backs and draw their names with their toes! On the other hand increase in mobility comes from having the limbs move through the whole range of possible movements.

Note the children's ability to track the demonstrated pattern. Gently hold their heads still if there is a lot of head turning. This encourages side vision and strengthens the muscles controlling the eyes. Try in sitting then standing position.

- To increase strength, children need a degree of resistance, e.g. in pulling fingers through the sand or in moulding clay.

## D) Games and Activities to help ball skills

The main ball skills are:

\* rolling \* retrieving \* throwing \* catching \* bouncing \* aiming

### 1) Rolling and retrieving

- Rolling a ball ahead and retrieving it before it reaches a line on the floor. This involves the child running round and fielding the ball in a 'basket.'
- Rolling the ball against an upturned bench and retrieving it on the rebound. The actions must be quicker this time or at least they must be adjusted to suit the strength of the roll.
- **Tunnels:** In twos facing one another. Sitting legs outstretched and apart. Roll the ball into the gap made by the other person's legs. Then twos join up to form a circle in the same sitting position. The child with the ball chooses where to roll it and the receiver rolls the ball on into the next tunnel.

This last activity helps directionality, it's fun and the speed can be varied. The good thing is that no time is lost chasing the ball to bring it back. It is firmly trapped in the different tunnels! Watch out for children having difficulty in releasing the ball and if this happens substitute a larger ball.

## 2) Throwing, Catching and Bouncing

Some children find it easier to catch a ball which has been sympathetically bounced to them. The 'bouncer' can say 'bounce and catch' to help the child with the rhythm of the action

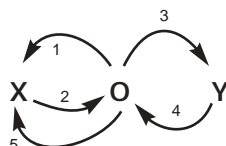
- Throw and catch sympathetically to a partner. Aim for 5 throws without dropping the ball. Although this sounds easy, children with poor three dimensional vision or poor tracking skills will turn away from the ball rather than try to catch it. A foam ball can give the children confidence that they will have time and a soft catch but progressing to having 'the real thing' usually pleases the child.
- Progress to throwing 'out to the side' or lower or higher so that the throwing child must plan and the receiving child must anticipate and adjust.

Use a variety of balls as skills improve. Foam balls travel more slowly and are easily retrieved, but they don't have much 'go'. Volleyballs are best because they are the 'real thing' but are light enough not to hurt.

### Donkey in the Middle

The game is played in threes, with the 'Donkey in the middle'  
Change the 'donkey' frequently and limit the area where each can go.

**Fivers:** Combines throwing and sequencing in five stages



In threes, pass from the middle to the side and back to the middle.

The middle person, O has the ball. He throws to X who throws it back. O then turns to face Y, throws the ball, receives it back and then turns to face X again. The throw is repeated to X who catches it and the two change places. This is the first sequence of 5 throws.

X in the centre is now facing Y and the five throws continue with the children changing places until the original positions are regained.

The trio sit down to show they have completed the game.

Once the routine is established the game can be a competition to see which group of three children finishes first. Having the threes lined across the hall means that all groups have the same distance to throw! This game may need to be built up slowly. It is a very good one for helping planning, as back in the classroom the children can draw out the path of the ball, numbering each throw.



### 3) Bouncing and catching

Lots of throwing the ball against a wall and catching the rebound gives practice in judging speed, distance and direction.

### 4) Aiming

- **Skittle Alley**

Rolling the ball to knock down skittles helps aiming - some children can bowl the ball, others can be in charge of replacing the skittles, while others keep the score. This can be called ten pin bowling if 'alleys' are constructed. Skittles can be made from plastic bottles half-filled with sand. Younger children can make lighter skittles which will topple more easily.

- **Shooting Goal**

Wicker waste paper baskets tied to wallbars are marvellous for learning to aim. If these are not available, sometimes netball stands can be lowered. The action involves an overhand push and so it is important to establish the correct stance i.e. having the opposing foot forward. Judging speed, distance and direction are all important.

### Including different age groups

Most activities can suit any age group if simple alterations are made, e.g. a 5 year old could use a bean bag for throwing and catching but an 11 year old would probably want to work with a ball. There are many sorts of balls, from foam ones which are light and don't travel too fast but don't bounce either to hedgehog balls which are hard but help children to grip. Volleyballs are much better than the heavier basketballs as they don't hurt if catches are missed and faces get bumped. So lots of variety in the apparatus gives different levels of challenge to the same task.

### Increasing Challenges

Similarly, difficulties can be added by changing the environment - perhaps adding more apparatus, more things to remember or perhaps having distracting movements or noises! If children have to walk along a pathway, difficulty is increased if the pathway is curved or angled or if obstacles are placed in the way so that they have to 'step over' or 'go round'. These require the children to adjust their pattern and balance demands are increased - the child will have to balance on one foot if 'stepping over' is part of the task and this can be challenging if the child tries to 'keep tall' as the adjustment is made.

Differences in speed add challenge, e.g. "can you throw the ball against the wall and catch it cleanly 5 times before I say stop?" and this can be made really tricky if someone else counts out the 1, 2, 3, 4, 5 rhythm. To experience this, ask someone to clap a regular beat and then skip down the room to it. The person clapping mustn't look and follow your rhythm - you must follow theirs! Other challenges can be made by altering the steepness of an inclined bench or asking children to carry out movement patterns together, e.g. "Watch your partner as you walk along the benches and keep level".

### Learning Objectives

A final point is to remind teachers that the point of this programme is to help the children cope. Teachers shouldn't expect high level skill performance. A small number of basic exercises carefully chosen to help each child's profile of needs, done well and practised regularly will suffice. Although the activities may not seem very challenging, they will stretch children with difficulties i.e. those who can find it difficult

to do things rhythmically and/or in sequence so that an effective and efficient pattern without extraneous movements results. They have been chosen to improve the children's basic movement patterns and to help them develop confidence and competence throughout their day. Teachers could try the movements themselves first to feel the demands made by an activity when it is done well.

There are many fun ways to help children with dyspraxia. Building activities so that the balance, rhythm, timing and directional demands gradually increase will help to develop the children's self-awareness and enable them to become more confident and competent children across the curriculum and in all the other coping skills they require at home.

## E) A Developmental Movement Profile

To try to help analysis, i.e. finding what is wrong, an observation profile can be used to record the children's difficulties and so provide evidence to gain more help or to pass information on to the next teacher. The competences may seem 'basic' but they are all important. If this profile produces worries then the A.B.C. Tests (Assessment Battery for Children) can be carried out by a P.E. specialist and give more detailed analysis.

The observation profile or checklist provided on the following pages is for one child who is causing you concern and a first step would be to discuss these initial concerns with the parent. The profile extends beyond movement, but it should be clear by now, that a child affected by Dyspraxia:Developmental Co-ordination Disorder may indicate difficulties in a range of ways and in turn, there may be different implications depending on other physical/social or emotional characteristics of the child. Completion of the checklist the first time would provide a useful focus for a second stage discussion with the parent and a check to see if both you and the parents are observing the same characteristics and behaviour.

You should record the child's usual level of competence rather than focusing on one unusual occurrence. If, however the child's movement is erratic making a general picture difficult or less than useful, please say that this is the case.

**Part A** offers a framework for describing the child's physical characteristics and normal behaviour pattern.

**Part B** of the Developmental Movement Profile asks you to tick one box for each competence then give a mark out of ten for 'general coping ability' in that field. The boxes are 'Yes, can do it'; 'Some difficulty' - meaning that the child needs real effort to cope; 'Severe difficulty' meaning that the child does not cope and 'no progress' which means that the child's performance is not responding to help- over 6 weeks or so.

**Part C** considers the social skills and emotional characteristics which may be affected by aspects of Dyspraxia:DCD

**N.B. This is a first step movement observation record to help teachers compile Assessment Profiles for school use, to share conclusions with parents or for gaining access to specialist help. It is not a test to determine dyspraxia.**

**A Developmental Movement Profile**

Child's Name ..... Sex    Male    Female

Age ..... years ..... months

Please tick if appropriate and add any other observation.

***Part A: Descriptors***

	Yes	No
Does the Child have		
a) Poor sight	<input type="checkbox"/>	<input type="checkbox"/>
b) Low hearing	<input type="checkbox"/>	<input type="checkbox"/>
c) A physical disability	<input type="checkbox"/>	<input type="checkbox"/>
d) Difficulty in understanding instructions	<input type="checkbox"/>	<input type="checkbox"/>
e) Speech difficulties	<input type="checkbox"/>	<input type="checkbox"/>
f) Body build problems	<input type="checkbox"/>	<input type="checkbox"/>
i) overweight	<input type="checkbox"/>	<input type="checkbox"/>
ii) fragile	<input type="checkbox"/>	<input type="checkbox"/>
iii) low toned	<input type="checkbox"/>	<input type="checkbox"/>
Is the child		
g) Very tense and unsure	<input type="checkbox"/>	<input type="checkbox"/>
h) Aggressive	<input type="checkbox"/>	<input type="checkbox"/>
i) Lethargic - hard to interest	<input type="checkbox"/>	<input type="checkbox"/>
j) Lacking persistence	<input type="checkbox"/>	<input type="checkbox"/>
k) Seeking attention all the time	<input type="checkbox"/>	<input type="checkbox"/>

Additional comments Teacher/Parent:

**Part B: Competences**

**Gross Motor Skills**

	<u>Yes</u>	<u>Some difficulty</u>	<u>Severe difficulty</u>	<u>Progress</u>	Comments
a) Stands still, balanced and in control					
b) Sits still retaining poise					
c) Walks smoothly and with good poise					
d) Turns corners efficiently					
e) Walks on tip-toe with control (count of 6)					
f) Jumps (2 feet off floor)					
g) Kicks a stationary ball					
h) Catches a large soft ball when thrown sympathetically					
i) Rolls sideways and recovers to stand with a good sense of timing and balance					
j) Crawls					

Additional comments Parent/Teacher:

**Fine Motor Skills**

	<u>Yes</u>	<u>Some difficulty</u>	<u>Severe difficulty</u>	<u>Progress</u>	Comments
a) Uses a pencil/paint brush with control					
b) Picks up and replace objects efficiently					
c) Uses two hands together to thread beads, build Leg or do jigsaws					

**Planning and organizing skills**

	<u>Yes</u>	<u>Some difficulty</u>	<u>Severe difficulty</u>	<u>Progress</u>	Comments
a) Listens attentively					
b) Makes appropriate movement response					
c) Follows more than one instruction					
d) Organises equipmen/t resources					
e) Understands					
i. spatial concepts - over, under, through					
ii. simple mathematical concepts, bigger, smaller					
f) Dresses in the correct order					
g) Draws a person with some detail of parts					

Additional comments Parent/Teacher

**Part C Social and Emotional Behaviour**

**Social Skills**

Yes      Some      Severe      Progress      Comments  
difficulty      difficulty

- a) Takes turns with no fuss
- b) Interacts easily with other children
- c) Takes the lead in activities
- d) Participates in some-one else's game



Additional comments Teacher/Parent

**Emotional Behaviour**

Yes      Some      Severe      Progress      Comments  
difficulty      difficulty

- a) Lacks confidence in following the daily routine
- b) Constantly seeks attention
- c) Disturbs other children
- d) Has difficulty sustaining eye contact
- e) Appears to find new situations stressful
- f) Appears aggressive or defiant
- g) Withdraws easily
- h) Shows impulsive behaviour.



Additional comments Teacher/Parent

To help establish the degree of overall difficulty it may be helpful to do a tally of the range of areas in which problems occur or progress has been made.

Can do      Some      Severe      Progress  
difficulty      difficulty      difficulty

**Tally column**

**Comments: Teacher/Parent**

**Agreed action points/ Links to IEP**





## SECTION 4 PRACTICAL STEPS FOR TEACHERS AND PARENTS

### Working together

The best learning is achieved when at least three important people are working together:

- The Teacher
- The Parent
- The child

Good communication between parents and teachers is imperative if the child is not to be confused by different signals, different value systems and different expectations. Have a look at how Simon (aged 10) and Simon's Mum describe life at school and life at home:

*Simon says: "Sometimes I get a bit mixed up when we play football and we have to change ends. Sometimes I score an own goal! But the other kids just yell, "Oh no, It's Simon again and they have a good laugh. I told them I have dyspraxia and so they let me off! When it's match time I go along to cheer."*

However Simon's Mum explained that while Simon had this coping strategy for school, at home frustrations boiled over.

*Mum says: "As soon as we get home he'll explode. I try to give him space but it's not always easy. His wee brother said, "If school's as bad as that I'm not going." How do you explain dyspraxia to a four-year-old?"*

Many parents speak of this 'explosion' once the child is away from the source of stress. Parents and siblings often don't manage to placate the child who knows he faces more of the same tomorrow

There should be scope for discussing what strategies will help at home and school, what IEP targets can be worked on together, developing a shared understanding of the child's difficulties and needs. Each understanding the pressures faced by the other means that two lots of expertise come together - surely the best way to ease everyone's day.

### Choosing a school.

When parents of **children affected by Dyspraxia DCD** were asked to say what criteria they would use to choose a school, they chose:

- A warm welcoming atmosphere,
- A caring ethos.
- Friendly staff - people who have time to listen and who want to understand.
- A uniform of polo shirts and pull-on sweaters - no ties, no laces, no buttons.
- Away from a busy road.
- Near home to avoid bus journeys.

The first four were the key criteria. League tables were not important to any of the parents. But they also wanted good communication with teachers.

*"We can cope with lots of things," the parents said, "but we need to be able to talk to the teachers and they need to be given time to listen."*

The following list of practical strategies arise from the preceding pages where the implications have been explained. And just as individual children have different symptoms of dyspraxia with different levels of severity, the strategies to help them must be individually selected too. Parents and teachers know their children well. They know what kinds of help children are likely to accept and what kinds of intervention could make them feel worse. If the child knows that everything possible is being done and that people are doing their best, he or she is more likely to accept that they must play a part, to try things out and talk about the helpfulness or otherwise of the strategies that have been tried.

## **A) Getting ready for school**

**Teacher's can usefully pass on these handy hints to parents or carers**

- **Choosing a schoolbag**

Choose a roomy bag with two front pockets. Always use these for the same things, e.g. pencil case in one pocket, letters home, bus passes, tissues, wet wipes, i.e. personal things in the other. This makes packing and checking easier and quicker. Some bags have one diagonal strap which distributes the weight more evenly and could help children with balance difficulties.

Choose velcro fastenings or easy clips.

Firmly attach a large, colourful, personal motif to help identification especially if the bag spends the day in a large box of other schoolbags. Have name and contact phone no. prominently displayed inside the flap.

Inside the flap have a laminated timetable - a smaller version of the one at home and at school.

- **Pencil case**

A large see-through pencil case can have a list of contents fixed inside so that they can be checked. Don't have too many pens etc. If there are any special instructions, e.g. "Go to Gran's from school today," a card in the pencil case can give a reminder and free the child from trying to retain that information all day.

N.B. Always remember to take the card out once it has served its purpose, or the child may carry out the instructions another day! He may not be sure that he visited yesterday and go again!

- **Lunch box**

(Packed lunches with finger food are a good idea if using a knife and fork is difficult).

Check whether the box opens and closes easily.

Wrap sandwich in foil, not cling film. Fillings such as cheese are easier to handle than those which make the bread soggy. Lettuce can be difficult to chew for children with poor muscle tone in the mouth. Check biscuits can be unwrapped easily - some are impossible.

Drinks - have a wide necked stable bottle, not one that tips easily. If the child will tolerate water, this makes less mess on clothes or floors if it is spilt. Avoid cartons which need straws pushed through or tops torn off. (Two - handed coordination may

be difficult and the child will squeeze the carton against the body with the result that the juice spurts out and makes a mess).

- **Wet wipes**

Very useful. Provide these to clean hands, ease toilet visits and mop up spills. (All of these reduce a child's anxieties)

- **P.E. Kit**

This should be as roomy as the child will allow, to ease changing quickly. Elastic waists and velcro fastenings make a huge difference. Shorts can go under trousers if the lesson is early on. Provide a plastic bag for carrying dirty equipment home and if shoes are left in school, remember to check sizes as the child grows, for tight shoes are even more difficult to cope with quite apart from crushing the toes!

- **School Uniform**

Avoid laces and buttons and ties if at all possible. Have velcro everywhere. Arrange for the teacher to have spare pants if accidents are likely. The child may wait too long before asking out. Poor muscle control in the bladder can mean being caught short! And if the toilets are some way off, the child may underestimate the time needed to get there or in a panic forget where to go.

## **B) Removing artificial barriers to learning**

### **1) Special equipment**

Standard school equipment can create barriers for children affected by Dyspraxia;DCD.

Special equipment such as inclined boards for reading and writing make a huge difference to the children. This equipment will have to become much more evident in mainstream schools if children's entitlement to " education.. directed to the development of the personality, talents and mental and physical abilities of the child...to their fullest potential" is to be met. This standard set out in the Standards in Scotland's Schools Etc. Act 2000 is set alongside an assumption that all children will be educated in mainstream schools unless very special circumstances apply.

Of course inclusion doesn't just mean educating everyone together, it implies a humane learning environment where the special needs of children are recognized and action promptly taken to ensure that artificial barriers to learning are removed and appropriate resources provided.

Some equipment e.g. inclined boards and wobble boards can be improvised quite cheaply and if there are Dads (or Mums) who have the right skills, perhaps they would be prepared to help. Class fund raising could also help the other children to understand that different people have different needs. However, it is the responsibility of the local authority to ensure that appropriate resources are provided to secure the development of children in need. Early identification of needs and getting the right kind of equipment which will help a child with difficulties in place, are critical to making a child feel included.

### **2) Assessment arrangements: Tests and Time**

It is important that children's achievements are fairly assessed, focusing on the learning objectives and making sure that the child's own impairments are taken into account in good time to enable appropriate arrangements to be made.

A dyspraxic child may need:

- more time
- a scribe
- time to practice .....
- questions or maps enlarged (and a larger desk to accommodate them)
- to be helped to gauge the passing of time

Of course not all children will need the same type or level of assistance, but teachers should be aware, from their classroom observation and notes, what special barriers a child is likely to encounter and plan how to remove them.

Remember, tests are aimed at assessing learning, not the skills normally assumed for sitting the test. Any test is harrowing enough without surprises.

### 3) The Learning Environment

Some checks to ensure that the classroom doesn't present obstacles to learning:

- **Reduce the potential for distraction**

Remove distractors whenever possible - if not, make sure dyspraxic children are away from noise e.g. from computers, children passing, trees at windows, mobiles or audio-visual aids which are 3-D, noises from the dining hall or other classrooms. In fact anything which will distract them and spoil their concentration. Better too to be seated a little distance from other children if the child cannot bear his personal space to be invaded. Make sure they have an uninterrupted view of the board if you use one.

- **Sitting comfortably**

Check that the children can sit comfortably, well supported in suitable chairs. Hard chairs with metal legs tend to tip easily and this makes balance very difficult. If balance is a problem, sitting on the floor is not easy - it may be painful. Allow the children to lean against a support and don't expect them to sit too long in one position.

Desks should be at elbow height. Small children benefit from a step if the desks are too high. Dangling legs pull the body forward over the desk and as they don't give support, this makes control of pencils or shifting papers difficult.

- **Learning aids**

Give an inclined board for writing and reading. This eases tracking from the board to the jotter when writing. The angle also eases pressure on the wrist and allows the pen or pencil to flow. The inclined board also helps reading because the eyes are less likely to jump over letters. If children need to press hard to obtain feedback from their proprioceptors, avoid pencils that break easily. Allow children to try out various pencil sizes to see which suits their individual grip. Triangular grips help some but not all children.

Help children to plan the layout of projects or maths work where keeping figures in the correct columns is important.

Allow children to practise using the keyboard as this can be a major help in expressing their thoughts. Software, e.g. Co. Writer, Type to Learn, helps.

- **Lighting**

Check that any overhead light does not glare or reflect on the children's work. This exacerbates visual difficulties and can be very irritating for children who already have difficulty focussing and retaining their place on the page.

- **Organisation**

Use a large-scale laminated timetable to point out the routine of the day. Have symbols for P.E. kit, e.g. a ball, for 'homework given out' e.g. a closed book; for 'homework in' perhaps an open jotter full of writing. Symbols can also be used for letters home and for when they are to come back. All of these and others, which the children can choose, alert those with poor planning to the days when special things have to be done. The timetable has to be big so that it does not become cluttered and confusing to the child it is meant to help.

Colour coding is very helpful and has many applications. Colour coding pegs in the cloakroom, trays, jotters, even pens, pencils and rubbers help children identify their own things and save squabbling. If the child chooses red as his colour, have him in the red group in class. Dots on pages to show the child where to begin and end are sometimes necessary, or if children have to do alternate sums on a page, it can be quicker to colour code them than to replan a worksheet.

Whenever possible keep a strict routine, e.g. always send letters home on a Friday. Then, even if the children forget, the parents know to check schoolbags and retrieve the letters before they are covered in mud off the games shoes or the juice spilt from the tumbler which has lost its lid. This avoids parents missing parents' night and wanting another appointment - so this extra preparation can pay off in the long run!

- **Personal help**

Make sure the dyspraxic children have extra tissues or wet wipes to ease visits to the toilet. And when they wish to go, don't ask them to delay. They may get little warning! Give them extra time especially if buttons have to be undone. On the other hand they may just forget to come back - running water has a fascination for many children, so keep an eye out for them and make sure they aren't gone too long. Perhaps the classroom assistant could be earmarked to keep tabs! If the classroom assistant could be involved in this watching way, then the child could even take a message to another teacher. This would give his self-esteem a huge boost. But remember, unsupervised, he may not return. As one teacher exclaimed, "I couldn't let Ewan go a message.... he'd never come back!"

### c) Teaching – some hints

- Identify the ways the child learns best (visually, 'hands-on' or through listening to instructions). Try to present the key learning issues in ways that would be sensitive to these preferred modes.
- Organise the learning in short spells and give time to relax in between. Experiment having music playing (Mozart gets good reports!). Some children find this helps concentration, others find it distracting, so once again be guided by the child's response.
- Reduce the number of items, sums or sentences the child has to complete so that he may finish at the same time as the other children. Ask the parents or classroom assistant to scribe stories or write out sums in advance, so that the child has only to work out the answers. And as the child's planning improves, give him small responsibilities such as giving out worksheets to his own table, anything that will boost his self esteem.
- Try to minimise what the children have to do without taking the responsibility away, i.e. help the children plan and organise but don't do the whole job for the child. Gauge what the child can manage with support, and leave appropriate challenges.
- Only give essential homework as the child may be tired and will be unable to complete it well. Allow a story to be taped rather than written. Discuss homework demands with Parents/carers.
- At the start of each lesson try to provide a recap of some sort. Remember these children can have short term memory problems which cause them to forget what has been taught in an earlier lesson. For the same reason dyspraxic children need extra repetition of key learning issues. This can be as word banks or giving the children access to books to remind them of what has gone before.
- Give stars for progress by all means and praise whenever praise is merited, i.e. in line with each child's ability and effort. Do not offer rewards "for doing it more neatly" or ask the child to "do it again". If the work is illegible, then the child will be able to read it to you tomorrow when he is not so tired.
- Use traffic lights to signal basic instructions, e.g. Red - wait in your seat, I'm busy. Yellow- time to tidy up or get ready, Green - I am ready to see you now or Begin now! This system prevents children approaching at inappropriate times and having to be rebuffed.
- Use masking tape to fix papers to the desk. This frees two hands for other jobs.
- Use large coloured arrows to give directions to the hall, the toilets, the library or the cloakrooms. These help children who are confused in corridors, and if the places are named, this helps the poor readers too.
- Use kitchen timers so that the children have a visual picture of how much time is left. If the twisting action needed to make the timer work is difficult (two hands working together at the midline), then a large egg timer is fun and does the job just as well. The children may of course prefer to watch the sand trickling through rather than working - it could provide a distraction!

Kitchen timers can

- \* indicate the amount of time left to finish a job
- \* be used for 'time-out' i.e. times to relax for a moment or regain control after a mishap (only for pupils!)

In the interests of safety, bear in mind that children with dyspraxia may be impetuous and have poor self-preservation skills. So - if children say they can swim, check before allowing them in deep water as they **may not** realise they are out of their depth. On excursions, they may dart into the road without stopping to check traffic. They may hear surrounding noises, but not the actual cars and they are so anxious not to be last! They will get lost unless there are clear instructions. Let the children practise reading them before the actual outing.

A last word is a plea for teachers to remember these children have a disability. It is with them all day every day. It is not easy to have dyspraxia or for families to live with it. Children often feel they have let their families down by being like this. They are anxious not to let their school down too. They are likely to be bright children who know you are trying to help. In a supportive environment where everyone understands and tries to look out for them, they are sure to be trying just as hard as they can.

#### **D) Sensitive issues for Teachers**

Teachers raised two practical issues for consideration:

- Giving young children a 'label'
- Touching children when offering support.

##### **1) Labelling**

Under normal circumstances a child with learning disabilities will be referred to an Educational Psychologist and possibly a therapist. These specialists may reach a diagnosis which is sufficiently precise to allow a specific term or label to be applied to the condition affecting the child. However, remember the quote earlier from Amanda Kirby, that "It is very difficult to find the 'pure' child". Any descriptive term such as Dyspraxia, includes such a range of factors that from a teaching perspective, it is not the label which informs practice, but an understanding of the factors which have led to the diagnosis and the strategies which can be used to help meet the needs of the child.

Many parents welcome the use of a specific term to describe their child's difficulties as a basis for fuller understanding and it can provide a starter point for teachers too. However, any decision about the use of a specific term to describe the condition affecting a child in school should be made only after specialist assessment and in consultation with the child's parents or carers

##### **2) Touching and support**

In recent years touching pupils has become a sensitive issue on which most education authorities have issued guidance.

Children with dyspraxia have difficulty in feeling where their body parts are in space and so may not be able to respond to verbal instructions such as "lift your chin" or "hold your arms in to your sides." Regular gentle adjustment by the teacher will help the child feel and gradually internalise the correct alignment. But with the current constraints on touching a child, how is this to be achieved? The answer may vary in different authority areas but in any event it is critical that parents are involved and helped to understand the nature of support the child may need, what it will involve and how they too can help.



NB Parent participation in the Developmental Movement Profile (Section 3) would help understanding of the programme to be put in place.

Education Authorities and Headteachers need to be aware of the special issues around helping children affected by dyspraxia and provide teachers with clear guidance on policy and practice, developed in consultation with parents.

## APPENDIX 1: Signs and symptoms of Dyspraxia:DCD

1. Poor body awareness, i.e. knowing where the body parts are in relation to one another. This causes difficulty in spatial judgments and in the timing/co-ordination of actions.
2. Poor sense of body boundary, i.e. knowing where the body ends and the outside world begins. This causes confusion in estimating distances.
3. Difficulty in concentrating, i.e. being able to shut out distractors such as noises or movements. This causes poor attention span.
4. Difficulty in three dimensional vision and in judging distances between objects. This causes bumping and delay in reacting to approaching objects
5. Touch defensiveness, i.e. shying away from contact, over-protecting personal space, tending to be irritable if nudged. Alternatively there may be a need for heavy pressure. In this case exaggerated stepping or thumping is displayed, giving satisfaction from forceful feedback
6. Difficulty in knowing what to do, i.e. judging what kind of response is acceptable.
7. Difficulty in carrying out sequences of movements, i.e. difficulty in planning ahead and remembering what comes next.
8. Difficulty in generalising, i.e. adapting one learned movement to another situation.
9. Poor postural control resulting from poor muscle tone, i.e. floppy limbs caused by poor muscle control around a joint. Poor stability and balance and as a result, difficulty in moving with control especially if speed is required.
10. Poor regulation in the amount of strength and speed used leading to over or underdoing the amount of effort needed.
11. Lack of clear bilateral dominance, i.e. no clear picture of a stronger side. Mixed dominance leads to directional confusion.
12. Ipse-lateral hand use, i.e. a tendency to use each hand on its own side of the body. Avoidance of actions which require crossing the midline.
13. Speech problems caused by poor control of the small muscles in the mouth.
14. Some children may have retained some primal reflexes, causing involuntary movements, e.g. shrugging, twitching, fidgeting. They prevent the development of more segmented movements.

APPENDIX 2: Sensory Integration Activities

<b>Visual Tracking</b>	<b>Auditory Listening</b>	<b>Tactile Touching</b>	<b>Kines- thetic Knowing where</b>	<b>Vestibular Balancing</b>
Follow finger activity - up down, sideways diagonally	Stories and songs through headphones	Make 2 body parts touch e.g. elbow and knee, hand and toe	Judging distances, e.g. move very near your partner, now go far away, go under legs	Walking tall along lines(curved and straight) along benches (narrow & broad) Walk on uneven - beanbag path.
FINGER PUPPETS	CHINESE WHISPERS	TANGLE TOTS	PROBLEM SOLVING	WOBBLE BOARDS
Track - a balloon - keep it up in the air	increase and reduce volume of sounds	Support weight on different body parts	Estimating then trying out plans	Rolling-long, forward always slowly to keep balanced.
Bowl a hoop, spin it towards you (P4)	BUZZING BEES	near (curl)	OBSTACLE COURSES	TURNING Stand arms out
SKITTLE ALLEY,		and far (stretch)	DANCE & DRAMA	make finger tips turn you round 1/4 way, 1/2 way etc.
bowling balls and knocking skittles over. Replacing skittles - making them balance	(in 2s one make soft buzzing sound. When it gets loud 2nd child runs to safe place	ANGELS IN THE SNOW	taking the movement words from poems or stories	Sit legs out and balanced on seat -make toes turn you round 1/4 way, 1/2/ way etc. Increase size and speed as balace improves

**APPENDIX 3 : Action Words Chart**

<b>ACTIONS</b>	<b>WORDS</b>	<b>QUALITY</b>	<b>SPACE</b>	<b>COMBINED ACTIONS</b>
<b>Travel</b>	Travel Dart, scamper, tip, plod, stride, rush, zoom, zip, dash, prow, crawl, skip, hop, zig-zag, etc.	WEIGHT  Strong Light Heavy	LEVELS  High Medium Low	Travelling/Turning  Darting/Spinning Or Travelling/Jumping  Scamper/Leaping
<b>Turn</b>	Swirl, twirl, wind, whirl, spin, whip, pivot, coil, pirouette, etc.	TIME  Quick Slow Sudden Sustained	DIRECTIONS  Forward Backwards Diagonally Sideways	Turning/Jumping  Whirl/Explode  Turning/Gesture  Wind/Sink
<b>Jump</b>	Leap, explode, fly, pounce, toss, shoot, pop, hop, bound, etc.	SPACE  Direct Indirect	PATHWAYS	Jumping/Stillness  Toss/Freeze  Jumping/Travelling  Bound/Crawl
<b>Gesture</b>	Twist, gather, flop, crumple, stretch, surround, jab, slice, point, etc	RHYTHM  Metric Non-Metric	On the floor  In the Air	Gesture/Jumping  Crumple/Pop  Gesture/Stillness  Slice/Hold
<b>Stillness</b>	Pause, hold, rest, wait, die, linger, freeze, sleep, etc.			Stillness/Travelling  Linger/Tip  Stillness/Jumping  Wait/Explode

**APPENDIX 4 : Lesson Plan for Dart and Freeze, Crumple and Pop**

<b>PATTERNS</b>	<b>ANALYSIS</b>	<b>TEACHING POINTS</b>	<b>ACCOMPANIMENT</b>	<b>EVALUATION</b>
<p><b>Warm up</b></p> <p>Dart &amp; Freeze</p>	<p>Dart: Quick</p> <p>Travelling Strong - Medium Level - Forward</p> <p>Freeze: Sudden Strong - High</p>	<p>Awareness of spacing. Feet skimming over floor. Increase in speed.</p> <p>Stop high and stretched. Look up to extended fingers</p>	<p>TAMBOUR</p> <p>Voice Sounds</p>	<p>Is the length of phrase appropriate?</p> <p>Is the rhythm correct for the speed and strength of the movement?</p>
<p><b>Movement Task</b></p> <p>Crumble and Pop</p>	<p>Crumble: Slow, jagged action Successive Movement</p> <p>POP: Sudden Explosion</p>	<p>From high to low Awareness of fingers, wrists, elbows, backs etc.</p> <p>Gather strength - leap One powerful jump</p>	<p>SHAKERS</p>	<p>Ability to move different body parts successively?</p> <p>Ability to move to rhythm?</p>
<p><b>Movement Phrase</b></p> <p>Dart, Freeze, Crumple, Pop</p>	<p>Practise alone then in twos. Dart together finish high and close crumple down, pop away.</p>	<p>Children begin to be aware of each other's movement. Note timing of crumple</p>	<p>TAMBOUR</p> <p>Silence (Non-metric rhythm)</p>	<p>Would activity be best done simultaneously or in canon?</p>
<p><b>Group Dance</b></p> <p>Groups re-order the words and from a selection of floor patterns build dances for 4</p>	<p>Each word may be repeated to make a longer dance e.g., Dart, pop, dart, pop, freeze, crumple, freeze, dart, pop</p>	<p>Each group must be able to show clearly in which order the words come.</p> <p>Variety in floor pattern and rhythm.</p> <p>Isolate and work on transitions.</p>	<p>Children accompany their own dances.</p>	<p>Do they need help with word order?</p> <p>Changes in speed? Changes in levels?</p> <p>Do they show relationships?</p> <p>Ability to repeat dance?</p>

## APPENDIX 5: Useful addresses

Afasic  
50/52 Great Sutton Street  
London, EC1V 0DJ  
Tel No. 020 7490 9410

Afasic Scotland (See cover)

British Dyslexia Foundation  
98 London Road  
Reading, Berkshire  
Tel No 01734 662677

CURB  
(Children under risk from, bullying)  
Maureen Booth-Martin,  
Heath, Cardiff CF4 3NT  
Tel No 01222 611300

Dyspraxia Foundation  
8 West Alley, Hitchin,  
Hertfordshire, SG5 1EG  
Tel No 01462 455016

Healthcall Discovery Centre  
12 Cathedral Road  
Cardiff, CF9 1LJ  
Tel No 01222 222011  
(Supplier of special equipment )

I – Can  
4 Dyer’s Building  
Holborn, London, EC1N 2QP  
Tel No 0870 010 4066  
The National Autistic Society  
393 City Road  
Stratford  
London, EC1V 1NG  
Tel No 0207 833 2299  
Helpline 0870 600 8585

The Nuffield Centre Dyspraxia Programme  
Nuffield Hearing & Speech Centre  
RNTNE Division of Royal Free  
Hampstead NHS Trust  
Grays Inn Road  
London, WC1X 8DA  
Tel No 0207 915 1535

Parents for Inclusion  
Unit 20,  
70 South Lambeth Road  
London, SW8 1RL  
Tel No 0207 735 7735

The Scottish Dyslexia Association  
Unit 3,  
Stirling Business Centre  
Wellgreen, Stirling, FK8 2DZ  
Tel No 07186 446650  
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**Afasic** is the UK charity which promotes the interests of children and young people with speech and language impairments, their parents and carers. Founded in 1968 as a parent led organisation, Afasic works closely with professionals raise awareness and understanding of speech and language impairments and improve services for children with shl and their families.

**Afasic** has a network of local parent support groups and a team of Development Officers active at regional and national level across the UK.

**Afasic** provides information, publications, training, workshops and conferences for parents and professionals. Afasic works in partnership with professional and statutory bodies, and other voluntary organisations.

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The Dyspraxia Foundation is a national registered charity with its administrative and fundraising centre in Hitchin, Hertfordshire. Founded in 1987 it is financed entirely by membership subscriptions and private donations. The Dyspraxia Foundation has a national network of local groups offering support and a wide range of activities and maintains a service to over 2000 members.

The Dyspraxia Foundation is a resource and information centre for those wishing to learn more about dyspraxia, its diagnosis and treatment and is highly pro-active in its expertise.

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