

May 2005

## Children with visual-motor perception difficulties in an educational environment

### Spatial awareness

Children with cerebral palsy and similar neurological impairments may have difficulty judging space. This may mean they bump into others or into objects. In the playground they may rush around madly getting into everyone's way or they may be anxious about mixing. Commonly these problems spill over into looking at pictures, words, maps and diagrams. Children with mobility problems may also have these visual-motor problems but they may not show as mobility is limited and controlled.

Typically copying from the board will be problematical. This is a complex sequence of inter-related actions.

1. Look at the board and fix on the item to be copied.
2. Memorise the item.
3. Look at the page and find the place this item has to be transferred to.
4. Access memory and perform the series of movements to reproduce the item.
5. Look back at the board for the next item.

Copying from an adjacent paper is easier. Having larger print and bigger spaces helps. Having alternatives to copying such as filling the blanks on pre-printed sheets or joining the answer to the question by a line can reduce the need for copying while still testing knowledge and ensuring reading takes place.

## **Position in space**

When you move you bear weight through your joints. Messages about how you are taking weight get sent to the brain. The brain should relate this to other signals from ears and eyes and interpret this to tell you where you are in relation to your surroundings. If the signals are weak you can't be sure you are safe. You may move constantly to get a better signal. You may misjudge spaces and situations.

Typically the child leans against walls instead of standing straight or props head on hands getting closer and closer to the page. Children may barge into spaces that don't exist to anyone else but them and be indignant when accused of pushing in. Children may be fearful when entering shadowy rooms from bright outsides. Young children may not be able to maintain balance when sitting on the mat and may tumble about.

These children fidget! They move constantly to reassure themselves of their position. They may be labelled hyperactive because they fail to sit or concentrate. They often sprawl or rock on the back legs of the chair. Appropriate seating and verbal reminders can help.

The child may also be easily distracted and thrown off track by stray sights and sounds that either they cannot integrate successfully or screen out. They may need to have these distractions screened out for them, to learn successfully and demonstrate that they have learnt.

As a general rule sitting with ankles, knees and hips at right angles and feet flat on the floor with the back firmly supported will give better feedback to the child. Giving extra table space to this child will prevent argument and may allow the child room to organise. Placing a small table to give an L shape can facilitate this.

## **Organisation**

Many children with these difficulties will also find it difficult to organise their work. They may need very structured guidance to take them through from start to finish and may come to rely on leaving their seat in order to obtain both extra feedback through their joints and reminders from staff. Giving the sequence of actions in picture form may help as will giving one task in a tray with all the relevant materials. Many children will respond initially to being called by name then given one specific action to accomplish at a time. All children will

respond to knowing clearly what the outcome of the task should look like.

Many children with these difficulties will not receive specific extra help, and classrooms need to be organised so that the teacher can stand behind the child giving instructions to the whole class while quietly breaking these instructions down for the child or children in need. Praising each specific accomplishment will reinforce the correct sequence of actions that is being learned.

Books on dyspraxia deal with these difficulties in detail and in a very practical way. Children with these difficulties may not be dyspraxic but may still benefit from the physical activities recommended.

Daily movement programmes where the whole body moves through different positions in space, where limb movements are isolated and repeated when standing, sitting, on front or back are very useful. Using the position words, “up”, “down”, “under”, “over”, “by”, “through” and so on, while performing the actions can help children feel more confident about themselves.

Children who have spatial or positional perceptual problems usually lack self-confidence. If you are not sure about your movements it is like the first day behind the wheel of the car, in heavy traffic with, often, a disapproving driving instructor. Remember it's like this every day for many children. Some children become quiet and anxious, some use speed and clowning to hide the deficits. Some children pretend they didn't want to join in anyway.

If you think you know a child where these problems are affecting the way he/she learns, contact an educational psychologist or GP and ask for an assessment from a paediatric occupational therapist.

**This document is for information purposes only.**

## **For more information about cerebral palsy and Scope services**

Contact Scope's Cerebral Palsy Helpline for information, advice and support. Copies of all Scope's information sheets can be downloaded from the website or obtained from the Helpline. Referrals to Scope's Community Teams and services can be made through the Helpline.

**The Helpline hours are:**

**Monday - Friday 9 am to 9 pm. Weekends 2 pm to 6 pm**

**Cerebral Palsy Helpline**

**PO Box 833**

**Milton Keynes**

**MK12 5NY**

**Tel: 0808 800 3333**

**Fax: 01908 321051**

Email: [cphelpline@scope.org.uk](mailto:cphelpline@scope.org.uk)

Scope's website address is [www.scope.org.uk](http://www.scope.org.uk)

Scope acknowledges the help and support of everyone who has been involved in the production of this information.

This information can be made available in other formats if required eg. large print or tape. We also have information about Scope and cerebral palsy available in 13 languages on audiotape and can offer a telephone interpreting service to people whose preferred language is not English.

Please contact Scope's Cerebral Palsy Helpline for more details of these services.

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