

May 2005

Visual function in children

If your child has a visual or spatial impairment, you may come across the following terms:

Acuity

How clearly he/she sees.

Visual acuity is the first thing to check if the pupil appears to be having any difficulties with written or graphic materials. A high percentage of dyspraxic children will have recognisable visual processing difficulties.

Motility

How well the child controls his/her eyes.

Muscles control the eyes and these have to perform accurately in order for the child to be able to fix his or her gaze, move the eyes from left to right and find a word or picture on a page. If pupils have problems with motility, they may not be able to copy work accurately or with any pace, particularly off the blackboard. Ask for optical checks to ensure that both eyes function together with a co-ordinated movement.

Constancy

Always seeing the shape in the same way.

For some children the shape and size of the shape they are looking at changes as they move their head or as each eye takes its turn on giving a picture. Experimenting with size and font against different coloured backgrounds can help.

Distractibility

Some children cannot screen out movement or light flickers. They may startle, lose concentration or even become aggressive. This interference may disrupt thought patterns and responses.

Figure ground

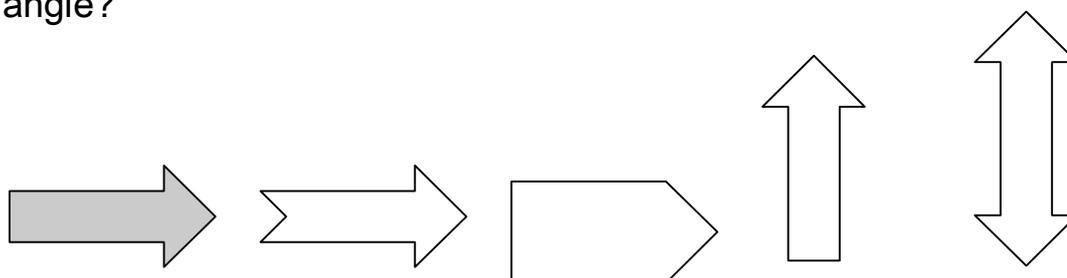
Whether the child can see one shape when it is embedded in another



This is really important for retrieving written or graphic information off a crowded page or board.

Orientation

Can the child see the sameness of a shape if seen from a different angle?



This is important for mathematics and reading.

Memory

Can the child remember the shape if it is covered or removed?

Kim's Game for younger children or the conveyor belt for older students can help children build this skill.

Depth perception

Can the child see the shape in three dimensions?

If the child does not see well in three dimensions he or she may not understand that a line drawing represents a solid object. In the worst cases the child may need to use cognitive skills to support a tactile

picture of the solid object and know that it is solid even when seen as two-dimensional. Opticians have a simple test for depth perception.

Sequencing

Does he/she appreciate the order that shapes are presented in?

Children with poor ocular motility, constancy or memory may not organise their visual messages in sequence. This has an effect on reading and number work. Can the child build a memory of objects in sequence?

Closure

Filling in the bits of the picture that are not shown.

Remember children with visual difficulties cannot tell you what they don't see and may not have the vocabulary to describe what they do see. Observation and testing in different conditions may give you a lead.

This document is for information purposes only.

For more information about cerebral palsy and Scope's 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: cp helpline@scope.org.uk

Scope's website address is 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 on telephone number 01908 321049 for more details of these services.

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