

## Hydrocephalus Literacy and Thinking Skills for Parents



### Introduction

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Many children, and teenagers, will be less 'street-wise' than others the same age. Very many will be lacking self-confidence, although their 'chattiness' may disguise this. Children and young adults with Hydrocephalus may appear to have difficulties in:

- Focusing on their work;
- Organising themselves;
- Figuring out how 'good' their work is.

These problems are related to working memory skills. They may be overlooked when a child has been assessed as having 'learning difficulties' because it is sometimes presumed that children with moderate or severe learning difficulties cannot learn to do these things.

Other difficulties may include:

- Hand-writing;
- Copying from the blackboard;
- Remembering instructions;
- Predicting 'what will happen next' in a story, or explaining why something happened;
- Talking about their feelings, or giving their own views about different things;
- Acquiring reading and spelling skills.

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### Working Memory: Problems & Strategies

Working memory refers to short-term memory (both for speech, and for mental 'pictures'). It also refers to the way we can focus on things we need to think about, and organise our thoughts. (This is called 'executive' thinking).

#### SHORT-TERM MEMORY

##### Short-term memory for speech

Children with hydrocephalus may not be able to remember as many words at a time as other children. They can be encouraged to repeat information to themselves (by 'whispering' it to themselves, and then saying it again, aloud).

Practice in 'saying things quickly' may also help. This can only be done with things that are already familiar to them, for example the numbers one to 10, the alphabet, and jingles (e.g. one line from 'Peter Piper'). Once they are confident with this they can go on to a more difficult exercise, e.g. saying the alphabet, and counting, backwards. (This must be seen as 'fun'.)

##### 'Picturing' things in the mind

Some children do not appear to 'conjure up' an image in their minds unless someone asks them to do this, and describes what it means. They can be encouraged to practise this by, for example:

- looking at a cereal box, or a book, and noticing things like the colours, the shapes, the size of the pictures, the size of the words;
- closing their eyes and answering questions about the colours and shapes and words.



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### Working Memory: Problems & Strategies

#### 'EXECUTIVE' THINKING AND SELF-CONFIDENCE

Self-confidence is important for learning. Children with hydrocephalus are likely to have a poor self-image in terms of physical abilities. They should be encouraged to learn how to do different tasks for themselves, and for the family, in order to boost their self-esteem. They need to be able to think 'I can'. Personal experience of working with some of these children suggests that they can develop more confidence in themselves, and that this does have an effect on motivation and 'stickability'.

#### **Focusing**

Many children will need to be taught how to 'stop and check'. (With very young children, this can begin with learning to 'wait' for a few seconds when they are about to 'interrupt', and being praised lavishly for being able to 'wait').

#### **Thinking and working independently**

If the school can allow homework time to help improve memory and thinking skills, progress may be quicker. Other independence skills could also be useful as homework tasks, for example learning how to:

1. write (or dictate) checklists of equipment and plan out homework assignments;
2. organise their belongings for the following day (and checking that the pencil case is properly fastened before packing it);
3. help with some family tasks, for example setting the table, clearing the table, washing some dishes.

#### **Figuring out how 'good' their work is**

Being able to assess how good their work is, in relation to what people expect of them, is important not only for school, but for further education and employment.

It can begin with an adult:

1. 'spelling out' what is expected, as simply as possible, for example washing up a few plates;
2. making sure that they can do everything that needs to be done for that particular task, for example turning on the tap and letting the water run until it is hot;
3. teaching them how to 'prove' that they can do each little thing by telling you how they will do it;
4. giving them a chance to 'show off' each skill by doing that particular thing without any help at all.

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### Other Difficulties

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#### **Hand Writing**

Some children aged between four and eight years, have been given 'Multilink' (plastic, coloured, fully interlocking cubes) for mathematics work at home, and many of these children have shown improvement in colouring in and handwriting skills. Some children may need large freely flowing implements when learning to write, e.g. felt tips, very soft pencils. Touch-typing programmes are available as computer software, both for two-handed and one-handed typing.

#### **Copying form the Blackboard**

Some children find this very difficult, and it is more helpful if the work is written out for them on a page. There has been a very noticeable improvement in this respect for some of the children whose parents have been arranging Multilink work and 'story-telling' activities at home (see below).

#### **Remembering Instructions**

A visual back-up for the information helps, for example check lists, time-tables, and diaries. Both children and young adults can also be helped by being reminded to repeat the instruction to themselves.

#### **Listening to Stories**

Pausing every now and then to talk about the story can help. It also helps if children can be helped to think about experiences they have had that are similar to events in the story.

#### **Predicting**

It is important that young children are helped to develop a concept of time. For example, they could 'count' while you open a packet of biscuits, and see how long a 'counting time' this takes. They could be shown how to use an egg-timer, or an oven-timer. They should also learn to read the time on a 12-hour clock.

They can be helped to predict by thinking about 'sensible' suggestions for things that might happen, and 'daft' suggestions. For example 'What might happen after dinner?' (A relation might come to visit; the electricity might go off; someone might phone; an elephant might walk through the front door).



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### Other Difficulties

#### **Predicting cont...**

Predicting other people's behaviour is sometimes more difficult than predicting 'physical' things. Some children may need help to understand and describe their own feelings, and then link this up to ideas about the sorts of things that make other people feel, for example sad, angry, afraid, happy, excited, please. Once they are using the words confidently, they can be introduced to other more 'complicated' words, such as 'embarrassed', 'relieved', 'guilty', 'proud' etc.

#### **Giving their own Observations**

Many children will seem to be very talkative, but when they are asked to express a personal opinion, to describe something from memory, or to give explanations, they can be very shy.

It is important to help them gain confidence in 'talking in sentences'. For example, if you have asked a question such as 'What was the school dinner like today?' and your child gives a one-word answer, ask him or her to 'tell you more'. You may need to supply the 'beginning' of the sentence e.g. 'We had...' Talking in longer sentences may also help to improve the memory.

#### **Reading and Spelling**

Children with hydrocephalus may be slower to develop the ability to read silently. Reading involves matching shapes, matching sounds, and linking up shapes and sounds.

#### **Matching**

For children under 9 years of age, one useful activity is a 'mathematical' exercise in helping children to copy a colour pattern, both as a continuing pattern, e.g. blue-green-blue-green, and as a 'tower' made up of different colours. (See '*Hydrocephalus and Numeracy*.)

A second useful activity is the 'personal story':

- The parent 'sets the scene' by telling the child that s/he is going to write a story as the child tells it;
- The child 'tells' the story, with perhaps some prompting for the first few times. (This should be an account of the child's own experiences, not a 're-telling' of a story book);



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### Other Difficulties

#### Matching cont...

- The parent repeats each word as it is spoken, and writes it down, slowly, to underline the fact that each spoken word has its equivalence in print. (This also has the effect of 'slowing down' the child's speech, and making it necessary to 'hold' it in mind);
- When finished, the child is asked to 'read' it. (At first, young children and those with learning difficulties, will be remembering, rather than 'reading', what they said).
- A single word (hopefully unfamiliar) is selected and written down separately – at a distance from the story. (The child is asked if s/he knows the word and, if the word is known, another word is chosen);
- The child is asked to 'find' the same word in the story. (The majority of children will be able to do this, although at first a few may seize upon similarities in an initial letter. They should be praised for this, and then encouraged to find one that looks exactly the same).
- The child is then shown how to find out what the word is by 'reading' the story again until the target word is reached. (The parent keeps a finger above the word, or circles it, to help the child remember where to stop).

The stories are usually very brief to begin with but, with practice, they become much more fluent.

Very occasionally, a child will 'charge' at a story and produce an endless stream of words. In this case, the aim would be to limit the story to 'one thing', for example 'Tell me one thing about your bedroom', and help the child develop a sense of structure by gradually building up to more complex sentences.

### Learning About Letters and Sound

Children who are familiar with 'Letter-land' (e.g. 'Annie Apple') and who also know a lot of nursery rhymes, find reading easier. Some children can also be helped by learning to 'whisper to themselves' then 'read aloud' one sentence at a time from reading books they know well.

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### Learning About Letters and Sound

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Once some word-endings are familiar (e.g. 'at'), children can learn to put different letters in front of it and 'make them rhyme', e.g. 'p-at', 'm-at'. It is more fun if the child is also

allowed to produce nonsense words e.g. 'l-at', and he or she can then say whether it is a real or nonsense word.

Some children can guess how to read a word by spelling it aloud, letter by letter, but spelling is usually more demanding than reading. Older children can be helped to listen as they say a word, and try to say what sounds they think they can hear. Most children can also make a good guess about 'whereabouts' in the word that sound comes, for example at the beginning, or near the end, or at the end.

Once they have been able to work out how a word should be spelt, children can begin to feel quite 'superior' when they realise that a lot of spelling does not make any sense at all.