



Specific learning disabilities

Seven-year old James is having considerable difficulty learning to read; nine-year old Chrissie hates maths and has trouble remembering her times tables from one week to the next; eleven-year old Martin has always had trouble with spelling; and ten-year old Simon writes really slowly if he wants it to be tidy.

All of these children may have a Specific Learning Disability (SLD). People with these difficulties are generally of average to above average intelligence with a particular area (or areas) of performance that is not consistent with other areas of performance. So, for example, Martin may be really good at maths and Chrissie may be a keen and proficient reader. SLDs are not due to hearing or sight disabilities, or general intellectual handicap. They are due to the way the brain processes information (rather than the eyes or ears themselves) and impact on many areas of living, including educational, social and emotional functioning – not just school work.

Underpinning the obvious difficulties in everyday functioning are a range of faulty brain processes – thinking of the brain as a computer can help to illustrate how brain processes can be faulty. Think of the brain as a computer containing a lot of programs designed to do different things, like understanding, remembering or producing language; working with numbers; organizing information into recognizable and sensible forms; or recognizing shapes and spatial concepts like size and distance.

Now think about information coming into the brain (from all of our senses like sight, hearing, touch, taste, smell, etc.) and then the brain performing a lot of different operations on it to organize it to make sense. In the same way, you might type information into a computer (using the letters and instructions on your keyboard) and the computer performs operations on that information to produce a document or a spreadsheet that you can print off or email to someone. Imagine what would happen if the word-processing program you were using was faulty and didn't spell-check; or formatted the page so there were big gaps; or made sentences of all of different lengths; or didn't recognize some of the letters you typed in and produced words like "schzzl" for "school". Using a faulty program that manages numbers could produce nonsense if it was faulty – 9 plus 3 could equal 1, or 5 times 4 could equal 12.

The main brain processes that can be faulty in SLDs include language processing (difficulty with reading, sounding out words or recognizing the meaning of words, or problems expressing thoughts); memory difficulties (remembering letters, numbers, and facts, and holding information in your working memory while you work on it); visual and spatial processing problems (trouble recognizing shapes like letters and numbers, laying out a title page, or understanding personal space); motor planning and coordination (difficulties with hand control or sports); organization (not understanding time concepts or logical thinking, trouble planning in advance or anticipating the consequences of actions, and difficulties getting sequences in the right order – like morning or evening routines). Difficulties with attention and concentration are often associated with SLDs and certainly make them more difficult to manage.

There is strong evidence that SLDs run in families, and injury to the brain that occurs before, during or after birth is also associated with SLDs. Not all learning problems are caused by SLDs – some children have environmental problems that can interfere with their learning. For example, children who are neglected or have unhappy family systems; children who come from a cultural background that is different from others in the school; ongoing illness, eyesight and hearing problems; poor nutrition; and a misfit between the child and his learning environment – all of these factors can contribute to learning difficulties.

When a child's achievement in any of her school-based activities is substantially below what is expected in relation to her age, schooling and level of intelligence, the possibility of an SLD should be considered. Simply because she is a really good reader doesn't mean that she can spell well or organize her homework assignments with the same success.

The assessment of SLDs involves a comprehensive assessment of all aspects of the child's life – going back to before he was born. An intellectual assessment provides clues to a number of the brain processes described above, and tests for specific academic skills like reading, spelling, and comprehension identify problem areas. Tests of hearing and sight help to exclude problems here, and an assessment of social and emotional functioning provide important information about the wider effects of the difficulties.

If a child has an SLD, there are a number of things that are important to remember:

1. Your child has strengths, and these need to be developed so that she can use her talents to compensate for her difficulties. For example, a child who has strong language skills may be able to master the basic computations of maths by learning them in a rule-based way rather than trying to understand the underlying mathematical concepts. Equally, a child who finds sporting activities difficult and unrewarding may excel in a drama class and achieve great pride and satisfaction in the mastery of this activity.
2. Learn as much as you can about your child's SLD and then work closely with the professionals involved with your child – the teachers, tutors and other professionals you engage – to ensure that she is getting what she needs to minimize the effects of the SLD on her learning.
3. Every time you meet someone involved with your child's learning, ask them for tips and suggestions that will support your child's learning.
4. Help your child to become unafraid to ask for the help that she needs – checking with the teacher that she understands her assignments, asking for things to be written down as well as told to her, knowing that the SLD is not her fault and does not mean she is "dumb".
5. You can assist with your child's learning by talking openly about the problem and not hiding it or avoiding it. An SLD is not a character flaw, and your child is not "lazy" or "unmotivated". We believe that children have an inborn desire to learn and that when this is not happening, there is something getting in the way – it is certainly not that they do not want to learn. Obviously, when children experience failure frequently, they become reluctant to try for fear of another failure and the unhappy emotions that can go with that. It's not that they don't want to try – they don't want to fail.
6. When working on the difficult areas, remember to have frequent, short, practice sessions (sometimes ten minutes is enough at a time). When having a longer practice session, take regular breaks and provide small rewards along the way to



keep motivation up. Always start with expectations that are guaranteed to produce success – aim really low to begin with so that your child gets to feel successful and thereby builds his confidence

SLDs make learning in our school system more difficult, but it is possible to moderate the effects of the SLD with knowledge and appropriate support from the child's environment.