

## **HIGH ABILITY, LEARNING DISABILITY, SUBTLE LANGUAGE IMPAIRMENT AND ADHD**

**I hope the following information will be useful to parents, teachers, therapists and to children and young people. (February 2010)  
*Dr Paul Hutchins AM FRACP MRCPCH***

Senior Staff Physician, Child Development Unit  
Senior Paediatric Consultant , Children's Hospital Education Research Institute  
The Children's Hospital at Westmead  
Locked Bag 4001 WESTMEAD NSW 2145 Australia

The commonness of learning difficulties, dyslexia and ADHD mean they must be managed collaboratively by local primary and specialised services. There is a frequent overlap between language disorders, learning difficulties and problems in organisation and control of thinking, learning and behaviour. Modern concepts are clear and appropriate evidence -based approaches to diagnosis and management are well-established. This applies particularly to the impact of specific developmental language disorders, literacy difficulties and the understanding of ADHD being "a learning disability described as a behaviour problem".

THIS OCCURS AT ALL LEVELS OF "GENERAL ABILITY "AND THE SCATTER OF ABILITIES IS JUST AS COMMON AND PERHAPS EVEN MORE SIGNIFICANT IN INDIVIDUALS WITH "GIFTS" (innate potential) and TALENTS (performance).

Relative vulnerabilities which are appropriate for age peers may not be recognised and yet can be very significant impairments compared to strengths which function equivalent to a child several years older. Assessment describes the realistic age levels at which different abilities function.

This is compared to the "gifted norm" not the age norm.

Information about and strategies for adolescents and high school students will obviously be relevant for some primary school students who are functioning at those older levels.

### **USEFUL INFORMATION TO CLARIFY YOUR CHILD'S STRENGTHS AND VULNERABILITIES, AND HOW BEST TO SUPPORT, CAN COME FROM A NUMBER OF AREAS**

THE PRIORITY IS TO UNDERSTAND THE DEVELOPMENTAL LEVELS AT WHICH A CHILD FUNCTIONS, WHAT GIVES SUCCESS AND PRAISE and HOW THAT RELATES TO THE LEARNING PERFORMANCE OR BEHAVIOUR CONCERNS

Relevant information includes some or all of:

- Assessment of academic tasks by class teacher
- Assessment of learning abilities by psychologist, e.g. school counsellor
- Assessment of Language abilities and realistic use of complex language by speech pathologist
- Assessment of Motor skills, handwriting skills by occupational therapist
- Assessment of cognitive organisation of thinking, attention and working memory

Interactions between these are discussed in various resources below:

***REFERENCES IN ITALICS ARE ESSENTIAL READING***

## GENERAL INFORMATION

**PARENT SUPPORT GROUPS** have valuable information and resources  
 e.g. NSW Learning Difficulty Coalition <http://www ldc org au> helpline phone 9806 9960  
**SPELD NSW** gives advice, resources, pointers to remedial teachers [www speldnsw org au](http://www speldnsw org au)  
 see also <http://www speld sa org au/sat/index.html> for software

*NSW Gifted and Talented Association and their learning difficulty support group*  
*Lots of useful links exist in these pages.*  
<http://www.nswagtc.org.au/>

## LEARNING LINKS

Assists ALL AGES with various types and levels of specific and global learning difficulties  
<http://www.learninglinks.org.au/> describes services and has many useful resource links  
[http://www.learninglinks.org.au/What\\_s\\_new\\_/Useful\\_Links/body\\_useful\\_links.html](http://www.learninglinks.org.au/What_s_new_/Useful_Links/body_useful_links.html)

## ADOLESCENTS AND GIFTED YOUNGER CHILDREN

A good site for LD + chat group for adolescents <http://www.ldonline.org/index.html>

## GIFTED STUDENTS WITH LEARNING DIFFICULTIES

*MANY links to relevant resources*  
<http://www.resourceroom.net/gtld/index.asp>

E.G. lesson plans <http://www.cloudnet.com/~edrbsass/edgifted.html>

## WHAT TEACHING STRATEGIES WORK AND WHAT GIFTED STUDENTS DESIRE

Vialle & Quigley [www.aare.edu.au/02pap/via02437.html](http://www.aare.edu.au/02pap/via02437.html)  
 Munro J [www.edfac.unimelb.edu.au/eldi/selage/documents/glmodel-Howgiftedstud.pdf](http://www.edfac.unimelb.edu.au/eldi/selage/documents/glmodel-Howgiftedstud.pdf)  
 personal qualities even more than intellectual knowledge; be creative patient honest

- Know cognitive emotional social needs of Gifted and Talented students (GAT)
- Maturity and experience
- Intellectual superiority
- High achievement orientation ( not too friendly)
- Commitment to intellectual growth
- Favourable attitude towards student
- Orderly and systematic approach
- Imagination
- Engagement in the teacher's own intellectual pursuits

## Department of Education approaches re gifted students

### New South Wales

<http://www.curriculumsupport.education.nsw.gov.au/policies/gats/>

### Western Australia

<http://www.det.wa.edu.au/curriculumsupport/giftedandtalented/detcms/portal/>

## OVERVIEW OF LEARNING DIFFICULTIES

**A very practical review of learning difficulties** with attention, reading, written output and maths; discusses models, describes and creates experience of difficulties and suggests extensive strategies. <http://www.pbs.org/wgbh/misunderstoodminds/intro.html>

**SPECIFIC LEARNING DIFFICULTIES (SEE CHERI and CONFERENCE PROCEEDINGS)****Overview of learning difficulties and its treatment**

[http://www.maccs.mq.edu.au/ddoll/p\\_treatment.htm](http://www.maccs.mq.edu.au/ddoll/p_treatment.htm)

and language and literacy [http://www.cheri.com.au/PDF\\_Files/Prof%20Max%20Coltheart.pdf](http://www.cheri.com.au/PDF_Files/Prof%20Max%20Coltheart.pdf)

**Proceedings of our CHERI Conferences:****2005 on Learning Difficulty**

<http://www.cheri.com.au/presentations.html#HipSoc05>

**2006 on Learning Needs: Theory & Practice**

<http://www.cheri.com.au/presentations.html#HipSoc06>

**2007 Putting evidence into practice to reach and teach ADHD**

<http://www.cheri.com.au/presentations.html#HipSoc07%20ESSENTIAL%20MODERN%20VIEWS>

**DR MELVIN LEVINE** - ABC radio July 2006 discussion

re **different learning styles particularly the importance of language disorders.**

<http://www.abc.net.au/rn/allinthemind/stories/2006/1679087.htm#>

<http://www.allkindsofminds.org/Excerpt.aspx?productid=8> language parts catalogue

HIS OWN WEB SITE IS <http://www.allkindsofminds.org/>

VAST INFORMATION, STRATEGIES, CASE HISTORIES + MANY EXCELLENT ARTICLES

<http://www.allkindsofminds.org/CategoryAll.aspx?section#Articles>

ESPECIALLY ON READING <http://www.allkindsofminds.org/Category.aspx?categoryID=2>

THIS has links to articles in detail on comprehension, decoding, memory and higher order reasoning.

<http://www.allkindsofminds.org/ArticleDisplay.aspx?articleID=5>

**WRITTEN EXPRESSION**

<http://www.allkindsofminds.org/ArticleDisplay.aspx?articleID=3>

<http://www.allkindsofminds.org/ArticleDisplay.aspx?articleID=2>

MATHS <http://www.allkindsofminds.org/ArticleDisplay.aspx?articleID=4>

**OVERVIEW OF INCLUSION STRATEGIES - evidence-based practical strategies 2007**

[http://www.dest.gov.au/NR/rdonlyres/D3113371-7E2C-49FE-8017-8495030736BF/18846/learning\\_outcomes\\_students\\_disabilities\\_resource.pdf](http://www.dest.gov.au/NR/rdonlyres/D3113371-7E2C-49FE-8017-8495030736BF/18846/learning_outcomes_students_disabilities_resource.pdf)

**MANY SPECIFIC STRATEGIES - especially adolescents:**

A good source of strategies [www.ldonline.org](http://www.ldonline.org)

<http://coe.jmu.edu/LearningToolbox/>

Examples of organising high school questions -mind maps etc (new version) [www.inspiration.com](http://www.inspiration.com)

**Strategies for reading and spelling disability** have varied options - class teacher + STLA and guidance staff can further refine to individual learning style .

**Reading** as a means of developing both oral and written language. [www.readinga-z.com](http://www.readinga-z.com)

[http://www.maccs.mq.edu.au/ddoll/p\\_treatment.htm](http://www.maccs.mq.edu.au/ddoll/p_treatment.htm)

*Max Coltheart -how to choose treatment + Max's recent test*

<http://www.speldnsw.org.au/publications.html>

including two lectures by Max Coltheart and Debbie Knight

Information on LD in Secondary schools for teachers of languages– i.e. excellent for ALL  
[http://www.curriculumsupport.education.nsw.gov.au/secondary/languages/assets/pdf/learn\\_diff.pdf](http://www.curriculumsupport.education.nsw.gov.au/secondary/languages/assets/pdf/learn_diff.pdf)  
 and Literacy supports –very detailed strategies ( 144 pages)  
<http://www.curriculumsupport.education.nsw.gov.au/middleyears/assets/pdf/ellasupport2.pdf>

## HIGHER LEVEL LANGUAGE DIFFICULTIES

**Higher level functional language is often inefficient** in such students and models of higher language difficulty in adolescence may be useful. If language processing at levels of ability is a problem, expert assessment by a speech and language pathologist with appropriate expertise may be useful. Assessment can examine complex language in reasoning and problem solving, with examples given of how function is( and is not) inefficient (even if language score are average or above) Intervention is directed the language task in hand-especially as this varies with subjects . G and T students with learning and performance difficulties most often show this in their extended written output, even if they seem highly verbally competent. .

[http://members.tripod.com/Caroline\\_Bowen/An%20invisible%20disability.pdf](http://members.tripod.com/Caroline_Bowen/An%20invisible%20disability.pdf)  
[http://members.tripod.com/Caroline\\_Bowen/Patchell&Treloar1997.pdf](http://members.tripod.com/Caroline_Bowen/Patchell&Treloar1997.pdf)

## EXTENDED WRITTEN RESPONSES

If for extended written responses is more compromised by motor output difficulties in increasingly complex curriculum and output demands, the use of keyboard/ computer may help with this: see <http://www.boardofstudies.nsw.edu.au/special-provisions/computer.html>  
<http://www.setbc.org/> classroom resources and training modules on assistive technology.

## WRITTEN EXPRESSION -see also

<http://www.pbs.org/wgbh/misunderstoodminds/writingstrats.html>  
 see also <http://www.speld-sa.org.au/sat/index.html> for software

## EXECUTIVE FUNCTIONING WORKING MEMORY AND ADHD

*Good modern view of models of ADHD and some excellent resources  
 - in my words: “a learning disability described as a behaviour disorder”  
[http://www.drthomasebrown.com/brown\\_model/index.html](http://www.drthomasebrown.com/brown_model/index.html)*

Prof Brown has particular expertise with able individuals –see his website and his books

Strategies for ADHD and social difficulty are well described in much educational resource material, including “Talk Time Teamwork ( Dept of Education resource for collaborative Management of ADHD; 2005 ) and other sources including

### *Western Australia resource for teachers drawn up and field trialled in 2007*

<http://www.det.wa.edu.au/inclusiveeducation/detcms/search/index.jsp?terms=ADHD&restrictToContentSections=inclusiveeducation>

<http://www.det.wa.edu.au/inclusiveeducation/detcms/navigation/current-initiatives/supporting-students-with-attentional-difficulties/>

<http://www.det.wa.edu.au/inclusiveeducation/detcms/navigation/current-initiatives/supporting-students-with-attentional-difficulties/what-will-i-do-in-my-classroom-/>

*Canadian Resources developed collaboratively by Professor Rosemary Tannock and others with many evidence-based strategies (SEE HER CHERI PRESENTATIONS ABOVE)*

<http://research.aboutkidshealth.ca/teachadhd/>

The mission of TeachADHD is to provide teachers and other education professionals with resources and materials that have been developed specifically to bridge the substantial gap between current neuroscientific understanding of ADHD and classroom practice. These resources and materials are relevant for teaching and supporting students who are inattentive, off-task, fidgety, restless, disorganized, and have problems remembering and following instructions regardless of whether they have received a diagnosis of 'ADHD'.

Dept of Education US recent evidence-based summaries:

<http://www.ed.gov/teachers/needs/speced/adhd/adhd-resource-pt1.pdf> overview of ADHD  
<http://www.ed.gov/teachers/needs/speced/adhd/adhd-resource-pt2.pdf> classroom strategies

Any STUDENT'S particular learning style must be understood and supported as fully as possible with the most appropriate educational and behavioural strategies. Once this is done, if significant ADHD exists, these strategies may be further enhanced by medication. Target symptoms can be defined by the student, his parents, teachers and therapists and a further trial could be undertaken by paediatrician. With current immediate and extended-release medications are available. In later years, they may not have the same benefits and/or side effects as in earlier trials.

## OVERVIEW OF INFORMATION ON ADHD

### **DRAFT National Guidelines on ADHD management and systematic review Jan 2010**

The Guidelines and Systematic Review have extensive references on many aspects of evidence-based management of ADHD and associated disorders – including diagnosis, educational strategies, medication and alternative therapies

[http://www.nhmrc.gov.au/publications/synopses/adhd\\_draft.htm](http://www.nhmrc.gov.au/publications/synopses/adhd_draft.htm)

**NSW Dept of Health Information on ADHD:** publications and data on prescribing..

<http://www.health.nsw.gov.au/PublicHealth/Pharmaceutical/adhd/index.asp>

**Survey and audit of doctor's management in NSW 2008**

[http://www.health.nsw.gov.au/pubs/2008/adhd\\_report.html](http://www.health.nsw.gov.au/pubs/2008/adhd_report.html)

## SUPPORTS FOR TERTIARY EDUCATION

– SEE OPENING ALL Options <http://www.adcet.edu.au/Oao/>

TAFE NSW <https://www.tafensw.edu.au/students/support/disabilities.htm>

**REASONABLE ACCOMMODATIONS** and Special Provisions for exams are discussed in: EXCELLENT Discussion of reasonable Accommodations (ANU but same for high school)

[http://www.anu.edu.au/disabilities/resources\\_for\\_staff/reasonable\\_accommodations.php](http://www.anu.edu.au/disabilities/resources_for_staff/reasonable_accommodations.php)

and specifically for Dyslexia and language learning disorders

<http://www.anu.edu.au/academicskills/las2005/papers/chanock2.pdf>

**Special Provisions for Exams and Study in High School ( NSW)**

<http://www.boardofstudies.nsw.edu.au/special-provisions/>

<http://www.boardofstudies.nsw.edu.au/special-provisions/faq.html>

<http://www.boardofstudies.nsw.edu.au/special-provisions/guidance.html>

[http://www.boardofstudies.nsw.edu.au/special\\_ed/exam-modifications.html](http://www.boardofstudies.nsw.edu.au/special_ed/exam-modifications.html)

[http://www.boardofstudies.nsw.edu.au/manuals/#specexamprovssc\\_hsc](http://www.boardofstudies.nsw.edu.au/manuals/#specexamprovssc_hsc)

explains specific provisions

<http://www.boardofstudies.nsw.edu.au/special-provisions/extra-rest-time.html>

<http://www.boardofstudies.nsw.edu.au/special-provisions/computer.html>

<http://www.boardofstudies.nsw.edu.au/special-provisions/readers-writers.html>

PRINTED GUIDE FOR SCHOOLS

[http://www.boardofstudies.nsw.edu.au/special-provisions/pdf\\_doc/schools-guide-special-exam-provisions.pdf](http://www.boardofstudies.nsw.edu.au/special-provisions/pdf_doc/schools-guide-special-exam-provisions.pdf)

HOW TO APPLY FOR SCHOOLS

[http://www.boardofstudies.nsw.edu.au/special-provisions/pdf\\_doc/how-to-apply.pdf](http://www.boardofstudies.nsw.edu.au/special-provisions/pdf_doc/how-to-apply.pdf)

SECTION 10.1 and 10.3 and Table of Provisions PAGES 168 -170

[http://www.boardofstudies.nsw.edu.au/manuals/pdf\\_doc/ace\\_manual.pdf](http://www.boardofstudies.nsw.edu.au/manuals/pdf_doc/ace_manual.pdf)

### **COMPLEMENTARY AND ALTERNATIVE PRACTICES**

Many different and models of assessment and intervention exist. Human individuality is so complex and diverse in typical and non-typical development that “any approach may help someone”. Some claim exclusive and unique benefits and “cures” and criticise other approaches especially availability and approaches of more orthodox services and / or paediatric medicine. Some have a small and unreplicated research base, most have only anecdotal support and nearly all are available only for fees (sometimes considerable).

For a critique of many of these see: [www.quackwatch.org](http://www.quackwatch.org)