



IN THIS ISSUE...

It has been said often that “a child with learning disabilities becomes an adult with learning disabilities.” Learning disabilities (LDs) are the burden of a lifetime. However, thanks to the accelerating evolution of assistive technology, the burden can become lighter.

Three million children (ages 6 through 21) have some form of a learning disability and receive special education in school. In fact, over half of all children who receive special education have a learning disability. Increasingly sophisticated methods of evaluation annually identify more and more children with learning disabilities, straining local special education capabilities in schools and further straining school district AT budgets. This issue examines learning disabilities and some of the resources currently available to ease their burden on children and families.

Marshall Raskind Speaks

More than 30 years ago, an undergrad college student in California stumbled into a child development class and was intrigued by the course material. Nearly three and a half decades later, that student, Marshall H. Raskind, Ph.D., doubles as Director of Research and Special Projects at Schwab Learning and Director of Research at the Frostig Center in Pasadena, California. Dr. Raskind is a frequent presenter at international learning disability conferences and is the author of numerous professional publications on learning disabilities and assistive technology. He is well-known for

his research in AT and longitudinal studies tracing LD across the lifespan. Along with his colleague, Dr. Brian Bryant of the University of Texas, Dr. Raskind co-developed the Functional Evaluation for Assistive Technology (FEAT), a two-year-old evaluation tool that provides assistance to professionals performing AT assessments. FEAT is a comprehensive set of materials designed to guide the AT evaluation process and appears to be the lone assessment tool of its kind dedicated to evaluating persons with learning disabilities as candidates for AT. Dr. Raskind began his work in AT at California State University at Northridge (CSUN), where he headed the university’s learning disabilities program as well as the school’s computer access lab in the CSUN Office for Students with Disabilities.

Supporting our interview with Dr. Raskind is an article by Assistive Technology Specialist Perrine Daily of the PACER Center as well as resources to assist parents and others in facilitating equipping their children with the most appropriate and effective AT. We also feature members of our **Knowledge Network**. The members spotlighted this month focus on aspects of learning disabilities and the ways in which AT can help compensate for various LDs. We invite you to contact these members for further information.

Please share this newsletter with other organizations, families and professionals who may benefit from it. We invite you to contact us at <http://www.fctd.info>. We welcome feedback, new members and all who contribute to our growing knowledge base.

A Singular FEAT: An AT Assessment Tool with a Focus on Learning Disabilities

An Interview with Marshall Raskind, Ph.D.

"The fact of the matter," declares Marshall Raskind, "is that learning disabilities do not go away. They persist throughout one's lifetime." He says he recently participated in a study spanning 20 years – "one of the longest studies in the field" – that tracked the factors leading to life success among individuals with learning disabilities. "One of the things that was made obvious in the study was that many of the learning problems experienced in childhood persisted into adulthood."

With "great new research" emerging on reading interventions and fast-evolving assistive technology "we're hoping that we can make things work much better" for individuals with learning disabilities. However, he cautions, "there is no cure per se" for the math, reading and organizational disabilities with which so many American children and their parents must cope.

Functioning Like Their Peers

Fortunately, he states, "Our research has shown that, through the use of various assistive technologies, children with LDs can function much more like their peers." The objective, he adds, is to "provide the opportunity for individuals with LDs to be able to express themselves at levels that are in line with their cognitive abilities and their intelligence."

In addition to lessening the burden of learning disabilities, AT "also offers the opportunity for independence to children "who, research tells us, are often dependent on others." That

independence, he adds, "hopefully works across various contexts in home and educational settings."

AT Can Remediate and Compensate

However, he warns, as effective as AT appears to be in helping children with learning disabilities compensate for a variety of weaknesses, "that is not to say that we should not be doing work in the area of remedial interventions and try to bring those skill deficits up as much as possible."

Often he is asked, "How can you give a kid a tool that does the work for them, does the reading, writing and the math?" His response is to explain that remediation and compensation are not mutually exclusive. The goal of AT, he explains, "is to compensate based on an individual's strengths."

Among the discoveries gleaned from his research, especially speech recognition research, "was that certain technologies, in the attempt to compensate, may actually serve to remediate or to improve the skill deficit" of children with learning disabilities.

FEAT: Finding the Best Match

Released in 2002, the Functional Evaluation for Assistive Technology (FEAT) was designed to provide examiners with a consistent and systematic protocol that could be used to conduct an ecological (multi-context) evaluation of an individual's AT needs.

Developed with input from professionals nationwide, FEAT aids AT evaluators in helping individuals with learning disabilities to achieve greater independence and is a well-organized system adaptable for widespread use as a standardized assessment model.

FEAT Worksheets are Organized as Checklists

FEAT, Dr. Raskind explains, is based on a multi-dimensional assessment model that recognizes the interplay between four components: 1) The individual; 2) The context/setting; 3) The specific tasks that must be performed; and 4) The specific device/technology, i.e. is it easy to use, easy to operate, does it have good technical support and is the equipment's cost commensurate with its cost/benefit ratio?

The worksheets accompanying the FEAT manual are comprised of a variety of scales to examine the individual, technological and educational settings and client/device interaction. The worksheets are organized as checklists to ensure that important considerations will not be overlooked during an assessment. The five FEAT forms evaluators must complete are: 1) Contextual matching inventory; 2) Checklist of strengths and limitations; 3) Checklist of characteristics inventory; 4) Technology characteristics inventory; 5) Individual-Technology evaluation scale.

He emphasizes that FEAT "is not a test, but instead a series of protocol and guideline scales – an examiner's manual, in effect – to help determine the appropriate technology for persons with LDs, in order to find the best match between the technology, the person and the task to be performed."

Drs. Raskind and Bryant undertook the development of FEAT "in response to the growing interest in AT and in the benefits of AT that have been realized for individuals, including children, with learning problems."

More and more research, Dr. Raskind stresses, "has shown the efficacy – the capacity to achieve results – of AT for the

population with learning disabilities and we wanted to find a way that was easy and systematic – a very important word for us – with ecological data drawn from a number of sources and also incorporate a number of different dimensions." The model he and Dr. Bryant developed, Dr. Raskind explains, "looks at the individual, the individual's specific strengths, weaknesses, interests and background experiences."

"There Wasn't Anything Out There"

Drs. Raskind and Bryant chose to develop FEAT "because there wasn't anything out there" like it. "Both Brian and I were conducting technology evaluations ourselves and we found it difficult to develop a standard and systematic way to determine the most appropriate technology for an individual." Their goal, he explains, was to make the evaluation process "more systematic, more comprehensive and more ecologically based," meaning that their information would be gleaned from as many sources as possible. For example, Dr. Raskind states, "we might gather information from parents, speech and language therapists, from occupational therapists and from the individuals themselves."

In an ecologically-based evaluation process, he continues, "it is critical to the success of the process that the individual being evaluated is a key participant in his or her own evaluation." He adds: "In terms of looking at the multiple contexts in which individuals with disabilities function, we're most interested in investigating the person in school, at home, in social environments. Depending on the age of the child, there may be work-related issues as well."

Willing to Do Whatever It Takes

The field, he admits, was not devoid of assessment instruments, but those instruments, he adds, "were not specific to persons with LDs." Both Raskind and Bryant are specialists in learning disabilities and each has published research regarding the efficacy of technologies for individuals with learning disabilities. In addition, Dr. Bryant had been director of research at Pro-Ed Publishing and was recognized as a leader in the development and construction of special education assessments.

Much of Dr. Raskind's work in developing FEAT, he says, grew out of his studies of college students with learning disabilities. "One of the things we look for," he states, "is an individual's history of technology use." He adds: "Obviously, students with technology experience are in a better position to take advantage of AT" than their less experienced counterparts.

"We've witnessed in our research that if persons with learning disabilities can see that technology is going to help them and is going to make a task or function more efficient, that it has practical value, then they're willing to do whatever it takes" to master the technology.

In the FEAT evaluation, Dr. Raskind reveals, "one of the things we look for is the individual's reaction to the technology, because if that individual doesn't like the technology, if they turn off to it, if they're a little technophobic, then the technology won't work for them."

"Our Focus is on LDs"

Dr. Raskind acknowledges the contributions others have made to the AT assessment knowledge base. Yet, that research, he says, did not focus on AT assessments on behalf of persons with

learning disabilities. "That excellent research," he observes, "dealt with other disabilities, like mobility and vision impairment, for example."

In addition to skirting the LD population, he adds, researchers had not yet developed a standardized AT assessment instrument. He explained, that FEAT "is not a normed instrument, it is not a test." However, in order to develop a standardized AT assessment instrument, he declares, "you have to consider some standard administration procedures." Also, "you have to look at the reliability and validity of the evaluation instrument that's under construction."

Dr. Raskind believes that FEAT "is the first AT assessment instrument that standardizes the assessment process, with a series of reliability statistics and reliability tests to ensure that the technology actually holds up." Such standardization, he comments, is vital "because if the assessor finds out that speech recognition works very well for a child in every way, on 25 factors, and then two weeks later it doesn't work at all, then the reliability and consistency of the technology becomes a concern" for the evaluator. The FEAT evaluation, he remarks, "is heavily based on the literature of the field and on research, so we know its findings are valid and that it is assessing what other experts in the field believe is important in the assessment process."

Half of U.S. Special Ed Students are Learning Disabled

The learning disabilities population, Dr. Raskind says, is among the largest of all U.S. disability populations. "If you consider all the U.S. public schools and look at the kids who are served in the special education system, over half of

those are identified as having learning disabilities.”

In American public schools alone, he points out, approximately three million students have been diagnosed as learning disabled. That figure, emphasizes, “does not take into consideration the kids in the post-secondary schools or others in the general population.” Drs. Raskind estimates that up to 10 percent of the total U.S. population, including adults, is learning disabled in some way. Others place that figure at even higher.

Part of the impetus for the creation of FEAT, he explains, grew out of the need to respond to requests from parents to demonstrate AT’s value. “They’d ask us, ‘Look, I know AT is important, but how do I determine if it really works?’” In addition, he notes, “We were also responding to federal legislation into which AT is written but there are so few resources available to guide parents, schools and practitioners” about AT’s value and about the characteristics, performance and usability of various assistive technology devices. “We’re not the only ones doing AT assessments,” he reemphasizes, “but we *are* the only ones focusing on AT assessments for persons with LDs.”

Questions of Efficacy

Much of FEAT’s protocol, Dr. Raskind explains, emerged from the research he and his colleague at the Frostig Center, Dr. Eleanor Higgins conducted. The two researchers analyzed the efficacy of various AT devices. Says Dr. Raskind, “We asked questions like: ‘Does speech recognition really help someone with a learning disability to write better?’; ‘Do optical character recognition (OCR) and speech synthesis really help some read better and improve their comprehension?’; Do speech synthesis

and reviewing text on a screen really edit a paper better and write better?’; ‘For someone using an OCR system, was it more effective at improving their comprehension than when that person was read to or when he or she read the material themselves?’”

Dr. Raskind emphasizes that the FEAT evaluation stresses the necessity for developing a valid basis for comparison. “The idea,” he remarks, “is not to be distracted by the coolness of the new technology” but instead to focus on its effectiveness. “We provide some guidelines that help evaluators formulate a basis for comparison. We say, ‘Using both informal and formal measure, let’s look at how a student writes when using a speech recognition system versus how that student writes when using pencil and paper versus how the student writes when using a word processor versus using a word prediction program.’”

Evidence-Based Practice

Drs. Raskind and Bryant want to see proof – evidence-based proof – that specific technology is effective in tangible, measurable ways. “We want to be able to say that there actually was improvement in the number of words, the length of the words; we want to see that the vocabulary was expanded and improved, that the semantic making meaning had improved, that the student performed a specific task faster – and that the student enjoyed using the technology.”

Dr. Raskind acknowledges that FEAT is an example of evidence-based practice (EBP). “We want to make certain that the AT is being used.” For example, he asserts, “One kind of AT can be a blessing for one individual in one setting but may be inappropriate in another setting.” An evidence-based approach, he asserts, is the best way to make that determination.

There are many factors to consider when evaluating AT for persons with LDs, he notes. "That's why we developed a series of scales, or ratings, for the equipment and the user." The FEAT's checklist appraises an individual's strengths and weaknesses "because what's important is for the AT equipment to play to an individual's strength."

For instance, "We'd want to know why an OCR with synthetic speech helps someone, or would that individual do better hearing the material because their strength is in listening as opposed to reading printed text?"

The crux of the FEAT evaluation, declares Dr. Raskind, is achieving a match between an individual and technology.

As an adjunct to FEAT's overall evaluation scale, the researchers developed specific scales for speech recognition, OCR, spell checkers and word prediction. These scales, Dr. Raskind states, are specific to individual technologies "because we know that each technology has some specific features that ought to be considered." In speech recognition, for example, FEAT seeks answers to the following questions: "Is it best for the individual to use discreet speech, which is hard to get? Is it best to use continuous speech? Is it best to limit the choice box to a certain number of choices for a particularly individual?" He points out that FEAT offers special worksheets for individual technology as well.

Dr. Raskind intends to continue refining the FEAT process to keep pace with the evolution of AT and its cost. Whether a device is high tech or low matters not to him. Only the equipment's efficacy matters. "In some cases a lower technology, or a lower cost technology,

may prove more effective at helping an individual compensate for a learning disability." In some cases, he happily concedes, "maybe using no technology is the best way to go!"

According to Dr. Raskind, "Both Dr. Bryant and I have done a vast amount of research on the efficacy of various assistive technologies with LD children and LD adults and seeing the positive change that can occur an individual's life when he or she is matched with the right technology is what keeps us pushing ahead into the future."



Blogging Boosts Reading and Writing Skills

By Perrine Dailey,
Assistive Technology Specialist,
PACER Center

What is Blogging?

Students who have a learning disability can use a variety of assistive technology tools to participate in a new Web activity called blogging. *Blogging* is the act of writing and posting information on a personal Web page on the Internet. Although blogging has been around for more than five years, many teachers and parents are unaware of how blogging can help boost reading and writing skills.

A *blog*, a shortened form of the terms "Web" and "log," is a personal Web site with a variety of information. The student may post a diary, a journal, reflections, a travelogue, poetry, fiction, photos, or a list of personal favorites. Posts are often informal and can be arranged in many ways for all kinds of purposes. Photos, graphics, music, sound and animation can be added to make the blogging experience more multisensory and less reliant on text alone. Some blogging sites, such as www.blogger.com offer online tutorials and tips for making the most of your blog.

There are many assistive technology tools that can make the blogging experience easier for students who struggle with reading and writing. Before composing text for a blog, a student could use a draft writing or brainstorming software program, such as **DraftBuilder** by Don Johnston, www.donjohnston.com, or **Inspiration**, www.inspiration.com. Talking word processors, word prediction, talking dictionaries, and spelling and grammar checkers can also help make the

writing and editing process much easier. A free, downloadable booklet about really useful assistive technology for students with learning disabilities is available at www.pacer.org/stc/ReallyUsefulTech.pdf.

For students who struggle with reading or need help revising their own text, there are many screen reading programs that read all text on the screen aloud. Some of these programs can be downloaded free from the Internet. See the University of Toronto Web site for more information and links to screen readers and talking browsers to use with blogs, www.utoronto.ca/atrc/reference/tech/scread.html.

It is easy to get started with a blog. One idea is to make a collage of favorite things using a flatbed scanner. Favorite toys, books, article of clothing, even a hand, can be arranged on the glass surface and scanned quickly and easily. These scanned images can be posted to a Web page, or modified using any number of digital imaging software programs.

Digital photos are a fun addition to any blog and a digital camera is not required. A single-use camera, found at most discount stores, can be used to take pictures of friends, family, pets, activities, places and objects the blogger likes and enjoys. The photos can be returned on a disk or CD to allow the blogger to modify them on your home computer.

Posting and Safely Sharing Your Blogs

To post a blog on the Internet, a person needs a Web site. Some Internet access companies provide Web site space as part of their package. There are also free Web sites for bloggers, such as freebies.about.com/cs/freebloghosting/. To boost your blogging vocabulary or read articles written about blogging, visit <http://www.marketingterms.com/dictionary/blog/>

It is easy to share blogs. A person could visit his or her own Web page from a school computer, a friend's house or the library, wherever there is an Internet connection. Blogs can be also shared away from the computer. A printed blog can be posted on a class bulletin board or kitchen fridge.

Even if bloggers direct users to their sites, it is still public. Because of this, parents should be mindful of any personal information disclosed, set ground rules and monitor activity. Some free host sites, such as Geocities, www.geocities.com, and Yahoo's personal pages, www.yahoo.com, allow users to protect their blogs with a password. If there is still concern, a blog can be kept on your home computer and not posted to the Internet.

The popularity of blogging continues to increase, and with the right assistive technology tools, children with disabilities can participate in this new activity with confidence.



RESOURCES

ARTICLES

How to Support Students with learning Differences: The Assistive Technology and Education Connection

By Leonard V. Pisano
LD Resources 2002

This article defines assistive technology and the referral process, discusses when technology needs to be considered and provides examples of the technology often

recommended for students with a learning disability. The author emphasizes the importance of analyzing curriculum objectives and how accommodations are made. His article aids in the development of a comprehensive educational plan aimed at providing on-going support for any student whether or not technology is used. The article is available free of charge at :

http://www.ldresources.com/articles/how_to_support_ld.html

Working Together: Computers and People with Learning Disabilities

University of Washington 2001

This article provides information on how computers can be utilized to help individuals with learning disabilities succeed in education and in their personal and professional lives. The article also describes the programs available that address the effects of learning disabilities on the written word. Featured are descriptions of various learning disabilities and their impact on an individual's ability to learn and work. Also included are examples of computer equipment and software that address specific learning disabilities. This article is available from: Do-It

University of Washington

P.O. Box 355670

Seattle, WA 98195-5670

Phone: (206) 685-3648; (TTY, in-state only) 1-888-972-3648

<http://www.washington.edu/doi/Brochures/Technology/atpworld.html>

Students with Learning Disabilities Assistive Technology Training Online Project

University of Buffalo 2002

This article is aimed at assisting in the education of students with learning disabilities. Topics covered in outline fashion include reading, writing, computer

navigation, references and social skills training. The article is available free of charge at:

<http://atto.buffalo.edu/registered/ATBasics/Populations/LD/printmodule.php>

Secondary Students with LD: What Should We Be Doing?

By Diane Pedrotty Bryant, Judy Englehard, Linda Reetz
Council for Learning Disabilities
Learning Disabilities Quarterly
October 2003

The article investigates the characteristics of good and poor secondary school readers. Of the universe of secondary students examined, the authors write:

"Secondary (middle and high school) students are expected to read and comprehend increasingly difficult text in a variety of content areas, such as science, history, and language arts. Students are expected to use their background knowledge to read and comprehend large amounts of text, to understand the meaning of vocabulary, and to decode multi-syllabic words encountered in content material." They add, "Secondary-level expectations, especially in regard to high-stakes testing demands, presume a functional level of reading proficiency often not attained by many students with learning disabilities, 80% of whom receive services for a reading disability." The authors' recommendations: "Given the needs of students with reading disabilities, teachers should provide explicit, systematic, intensive, and comprehensive empirically based instruction that includes the critical elements of a secondary reading program for struggling readers."

<http://www.cldinternational.org/c/@Ic.nAIE9U.CKQ/Pages/reading1.html>

Educating Kids Who Learn Differently

National Association for the Education of African American Children with Learning Disabilities (AACLD) 2003

The article is a primer on learning disabilities, with a strong focus on African American children with learning disabilities. The article reveals, "Research documents that African American children are sometimes underrepresented in the special education category of specific learning disability while they are often over identified in the categories of emotional disturbance and mental retardation. (These categories are labeled based on the terminology used in federal law.)" <http://www.aacld.org/>

Continued Mislabeled of African American Children Requires Parental Attention

National Association for the Education of African American Children with Learning Disabilities (AACLD) 2003

The article warns, "African American parents of children who are struggling in school should be aware of the overrepresentation of minority students in special education in order to best prepare their children for the future." According to a series of new national studies released this year by the Civil Rights Project at Harvard University, the article says, "School districts nationwide continue to improperly and disproportionately place minority students in special education classes despite an increase in civil rights protections and special education services over the past 25 years." The report also states, "When compared with their white counterparts, African American children (in data from 1997) were almost three times more likely to be labeled "mentally retarded."

Although many minority children have been misdiagnosed and inappropriately placed in special education, the article

continues, "the reality is that the current legal process must be used to obtain the appropriate services and supports that every child is entitled and needs for school and later life success." Parents are urged not to resist evaluations for a foundering child "but they should be vigilant, making sure that the findings are accurate and that the interventions rendered result in continuous academic and social progress."

<http://www.aacld.org/>

The Law Ensures a "Free and Appropriate Public Education" for All

National Association for the Education of African American Children with Learning Disabilities (AACLD) 2003

The article reminds parents, "Federal law exists to ensure that all children with disabilities have available to them a "free appropriate public education." The eligibility category of "a specific learning disability" is one of the 13 listings under the law for children who need special education and related services, the article says. "The regulations define a learning disability as a disorder in one or more of the basic processes involved in understanding or in using spoken or written language. This disorder may be recognized in an imperfect ability to listen, think, speak, read, write, spell or to do math."

The author continues, "Often referred to as an 'invisible handicap,' learning disabilities are sometimes misidentified or undetected because they cannot be seen." Children with learning disabilities "are quite normal, even above average or exceptional in many respects, yet they tend to interpret differently what they see or hear." These children "are often oriented differently to relationships in space and time, and may show poor coordination, lapses of memory, and disorganized thinking." Although

neurological tests, as a rule, show no abnormalities, "these children are often far behind their age peers in basic skills because they have not been taught in a way that they can learn." The author concludes with a warning: "Many schools are ill equipped to teach children who learn differently. Teachers are often misinformed or sent mixed messages regarding compliance with the law." The author cites a nationwide survey conducted last year that indicating that four out of five teachers lack confidence in their ability to teach students with special needs. Few parents, the author writes, understand their rights and responsibilities. "This means that families of children with learning disabilities must educate themselves about learning differences and the law. The Federal law that supports special education and related services for children with disabilities is called the Individuals with Disabilities Education Act (IDEA)."

<http://www.aacld.org/>

PUBLICATIONS

Life Success for Children with Learning Disabilities: A Parent Guide

By M.H. Raskind, R.J. Goldberg, E.L. Higgins, K.L. Herman
Frostig Center January 2003

Why do some children with learning disabilities succeed while others find little reward personally, socially or financially? The guide attempts to provide answers to these and related questions for parents raising children with learning disabilities. The information presented is based on a 20-year study tracing the lives of individuals with learning disabilities from childhood into adulthood in an attempt to identify individual characteristics and life experiences that lead to successful life outcomes.

The guide also draws upon the work of other researchers who have identified factors that contribute to success. The guide is available at no cost at http://www.ldsuccess.org/guide/what_is_success.html

One Child at a Time...A Parent Handbook and Resource Directory for African American Families with Children Who Learn Differently

Published by the National Association for the Education of African American Children with Disabilities (NAEAACLD), this handbook is available free of charge from:

NAEAACLD
P.O. Box 09521
Columbus, OH 43209
Phone: (614) 237-6021
info@aacl.org

Learning Disabilities Quarterly

LDQ is published four times annually by the Council for Learning Disabilities (CLD). For further information on LDQ, contact: CLD

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Leesburg, VA 20177
Phone: (571) 258-1010
Fax: (571) 258-1011
<http://www.cldinternational.org/c/@Ic.nAIE9U.CKQ/Pages/ldq.html>

LD Forum

LD Forum is a bimonthly newsletter published for members of the Council for Learning Disabilities (CLD). For further information on LD Forum, contact: CLD

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<http://www.cldinternational.org/c/@Ic.nAIE9U.CKQ/Pages/forum.html>

FACT SHEETS

Learning Disabilities and Assistive Technology: An Emerging Way to Touch the Future

Published by the Georgia Assistive Technology Project, this fact sheet details areas of difficulty in reading, writing, math, daily living and social skills. It also contains a comprehensive resource listing for advocacy groups, Internet and vendors. For more information, contact: Georgia Tools for Life
2 Peachtree St. NW, Suite 35-413
Atlanta, GA 30303-3166
Phone: (404) 657-3084; (in-state) 1-800-479-8665

http://www.ldonline.org/ld_indepth/technology/tfl_mystery.html

Infosheets

Published by the Council for Learning Disabilities in order to translate research into practice in the following areas: Asperger's Syndrome, assistive technology, college opportunities, reading comprehension, reading fluency, reading vocabulary, reading word identification.

<http://www.cldinternational.org/c/@Ic.nAIE9U.CKQ/Pages/sheets.html>

The following fact sheets are available online from the National Center for Learning Disabilities (NCLD)

http://www.ncl.org/LDInfoZone/InfoZone_FactSheetIndex.cfm

LD at a Glance

An introduction to learning disabilities in general and an explanation of how LDs impact individuals of varying ages.

Dyslexia and Dyslexia: A Quick Look

An introduction to learning disabilities in reading, including a breakdown of warning signs by age group.

Dyscalculia and Dyscalculia: A Quick Look

An introduction to LDs in math, including a breakdown of warning signs by age group.

Dyspraxia and Dyspraxia: A Quick Look

An introduction to LDs in motor skills, including a breakdown of warning signs by age group.

Dysgraphia

An introduction to LDs in writing.

Information Processing Disorders

An introduction to the general category of information processing disorders, including different types of auditory and visual processing disorders.

Auditory Processing Disorders: By Age Group

An overview of warning signs as well as helpful strategies for various age groups.

Auditory Processing Disorders: In Detail

An overview of specific types of auditory processing disorders.

Visual Processing Disorders: By Age Group

An overview of warning signs as well as helpful strategies for age groups.

Visual Processing Disorders: In Detail

An overview of specific visual processing disorders.

Attention Deficit/Hyperactivity Disorder

An overview of this brain function disorder.

WEBSITES

Assistive Technology Educational Network (ATEN)

The organization is a Florida Diagnostic and Learning Resources System (FDLRS) Specialized Center located in the state's Seminole County. For more information contact:

ATEN

Phone: 1-800-328-3678

Fax: (407) 688-4593

<http://www.aten.scps.k12.fl.us/>

LD Online: The Interactive Guide to Learning Disabilities for Parents, Teachers and Children

LD Online is a comprehensive site for parents and teachers of students with LDs, as well as for individuals with LDs. The site defines learning disabilities and provides the means to request information and support from parents and professionals. <http://www.ldonline.org>

Misunderstood Minds

A component of the PBS television documentary of the same name, this site features stories of five children with learning disabilities and learning differences. The site simulates various disabilities to enable the reader to vicariously experience the difficulty in maintaining attention, in decoding phonemes, recalling math facts and in making a pen or pencil perform. The site also features books, other websites, videos, assistive technology and local resources.

<http://www.pbs.org/wgbh/misunderstoodminds/>

ADVOCACY

Advocating for Your Pre-School Child

This introductory guide assists parents and guardians in obtaining services for

children whom they believe may have a learning disorder.
http://www.ld.org/LDInfoZone/pdf/FactSheet_Advo_pre.pdf

Being Your Own Advocate

This fact sheet guides the reader through the basics of helping teens and adults with LDs to become familiar with their rights and responsibilities in school, college and the workplace.

http://www.ncl.org/LDInfoZone/InfoZone_FactSheet_SelfAdvocacy_Teens.cfm



KNOWLEDGE NETWORK MEMBERS

CAUSE



The Citizen Alliance to Uphold Special Education (CAUSE) has been the designated Parent Training Information Center (PTI) for Michigan since 1984. The organization provides free information referral, support, advocacy and workshops for parents and professionals who work with children with disabilities and special needs.

CAUSE acts as a legislative advocate by monitoring the activities of the Michigan legislature, the state's Board of Education and other bodies of elected officials statewide and at the national level that are responsible for funding delivery of special education programs and services.

The organization offers workshops on education topics as well as on Section 504

of the Rehabilitation Act. CAUSE also offers the following publications for purchase:

- *Section 504: How to Use the Law Effectively to Serve Students*
- *CAUSE Rulings Manual*
- *Cause Rulings Manual Quarterly Updates*
- *Parent Support Program*
- *A Language Communication Curriculum for Students with Autism and Other Language Impairments*
- *The CAUSE Advocate*, a quarterly newsletter

For more information on CAUSE, contact:
CAUSE
6412 Centurion Drive, Suite 130
Lansing, MI 48917
Phone: (517) 886-9105; (toll free) 1-800-221-9105
Fax: (517) 886-9366
Contact: Collette M. Ward, Chairperson,
Statewide Parent Advisory Committee (SEAC)
info@causeonline.org
<http://www.causeonline.org>

Harvey County (KS) Special Education Cooperative



The organization is a collaborative effort between the Newton, Halstead and Hesston school districts in Harvey County, KS formed to provide services for children birth-21. The cooperative does not charge for services. About 5,400 students are served by the three participating districts. More than 700 students with disabilities receive the organization's services. The cooperative utilizes a continuum of service levels ranging from total, general education integration to placement in a separate facility. Community based training is an integral

part of the services offered to children who are moderately or severely disabled.

The cooperative offers the following support services:

- Adapted physical educators
- Audiologist
- Occupational therapist
- Physical therapists
- School psychologists
- Social workers
- Special education nurse
- Speech and language pathologists
- Consultant service for visually or hearing impaired children

For more information on the cooperative, contact:

Harvey County Special Education
Cooperative
McKinley Administrative Center
308 East First
Newton, KS 67114
Phone: (316) 284-6580
Fax: (316) 284-6589
<http://www.newton.k12.ks.us/sped/>

Attention Deficit Disorder Association (ADDA)



Founded in 1989, ADDA supplies information and resources on to individuals and families affected with AD/HD and to professionals in the field. ADDA provides the following activities and resources to its members:

- An annual national conference
- A website
- *Focus*, a quarterly publication
- Written tools, including ADDA Guiding Principles for Coaching Individuals with AD/HD
- Audio and video tapes on a wide range of adult AD/HD topics
- ADHD teleconferences

- Networking opportunities for adults with AD/HD as well as professionals
- Advocacy

Members of the ADDA Board of Directors regularly provide expert information on adult AD/HD for a variety of media sources, including *The Wall Street Journal*, *Forbes*, *WebMD*, the BBC and Oprah. In addition, the organization has developed the Adult AD/HD Fact Sheets for the National Center on AD/HD funded by the Center for Disease Control.

For further information on the association, contact:

ADDA
P.O. Box 543
Pottstown, PA 19464
Phone: (484) 945-2101
Fax: (610) 970-7520
Contact: Dr. Michele Novotni, President
mail@add.org
<http://www.add.org>

Trafford Center for Technology and Learning Disabilities (TCTLD)



Assistive technology – computer support that aids students in working around or bypassing their learning disabilities – is the primary focus of TCTLD at the Frostig Center. This support helps students with LDs function at a level more in line with their intellectual abilities. Founded in 1992 under a grant from the Febe Family Foundation, Trafford was the nation's first technology center devoted exclusively to persons with learning disabilities.

Trafford AT assistance programs for students based on the students' individual needs are based on the results of an AT assessment.

TCTLD also provides direct services outside the Frostig Center. These services include:

- The AT assessment
- AT training for individuals with LDs
- Specialized training and hands-on workshops for teachers, administrators, counselors and therapists

TCTLD also conducts research to evaluate specific technologies and their benefits to persons with LDs. Research results have been published in numerous publications.

State-of-the-art technologies employed by Trafford include:

Speech recognition systems, for students who can “talk out” information more effectively than they can write it, change spoken words into computer text and enable students to write by dictating to a computer

Speech synthesizers, combined with word processors, that enable students to hear as well as see what they have written on a computer -- for students who are better able to catch errors in their writing when they can hear as well as see what they have written

Optical character recognition/speech synthesis systems that work as reading machines, converting hard-copy text such as books or newspaper articles to spoken language, so students can hear as well as see printed words -- for students who have difficulty reading printed words and can understand spoken languages better than printed text

Alternative keyboards that allow for customizing character appearance and placement/position -- for students with

motor problems that may interfere with the use of a standard keyboard

“Talking” calculators that speak the numbers that are pressed on the keyboard and display answers – for students who make frequent errors when inputting numbers and who have difficult reading answers

Electronic personal data managers that allow the users to store and retrieve large amounts of data, including phone numbers, addresses, appointments and notes – for students experiencing difficult organizing and remembering information

“Talking spell checkers/dictionaries that read letters, words and definitions aloud – for students who have difficulty spelling words and have reading problems that interfere with the use of a standard dictionary

Word prediction software that predicts the words students want to write on the computer – for students who have problems with keyboarding, spelling, grammar or diction

Semantic mapping software that allows students to create a diagram of their ideas on a computer before writing – for students who experience difficulty in putting their ideas on paper in an organized fashion

AT assessments are the TCTLD’s signature. Trafford emphasizes that these assessments “are not psycho-educational evaluations...although we strongly urge clients to consider the importance of a full psycho-educational evaluation prior to, or in conjunction with, the technology assessment.” Trafford’s AT assessments explore technology options to determine those most appropriate for school, home or workplace. Once the nature of the LDs

is determined for each student, the AT assessment “can help the individual explore ways to facilitate learning through compensatory strategies that bypass weaknesses and maximize strengths.

For more information on the Trafford Center, contact:

The Trafford Center
971 North Altadena Drive
Pasadena, CA 91107
Phone: (626) 791-1255
Fax: (626) 798-1801
Email: center@frostig.com
<http://www.frostig.org/technology/tctld.htm>
Marshall H. Raskind, Ph.D., Director

**Learning Disabilities
Association (LDA)
of Minnesota**



Based in Minnesota’s Twin Cities – Minneapolis-St. Paul – LDA of Minnesota is a regionally prominent, research-based, full-service, non-profit educational agency specializing in learning disabilities.

LDA of Minnesota was founded in 1967 by five professional educators who became inspired to create an association of tutors focusing on learning disabilities after attending The Reading Clinic in Rochester, MN. The founders began by tutoring in their homes before housing their association in a community center in 1974 under the name LDA Reading and Math Clinic. LDA developed many partnership programs with public and private schools, colleges and post-secondary training institutions and adult literacy programs. Throughout its history, LDA has provided direct service to thousands of Minnesota residents with learning disabilities and their families.

LDA of Minnesota offers the following programs and services:

- A community program serving economically disadvantaged children
- Intensive reading instruction
- Family literacy activities
- Social skills and behavior management training
- School-to-work transition
- Self awareness workshops
- Transition planning for high school seniors
- Children’s one-to-one tutoring
- Summer camp
- Teacher training

For further information, contact:

LDA of Minnesota
4301 Highway 7, Suite 160
Minneapolis, MN 55146
Phone: (952) 922-8374
info@ldalearningcenter.com
<http://www.ldalearningcenter.com>
Kitty Christiansen, Executive Director

**Council for Learning
Disabilities (CLD)**



CLD is 20-year-old international organization whose aim is to help its membership stay abreast of current issues shaping the LD field, impacting the lives of children and students and influencing professional careers.

The organization publishes Infosheets, *Learning Disability Quarterly* and *LD Forum* and supports a wide range of LD-related scholarly initiatives and qualitative research as well as a legislative agenda on the local, state and national levels.

For more information on CLD, contact:
Council for Learning Disabilities
P.O. Box 4014
Leesburg, VA 20177
Phone: (571) 258-1010
Fax: (571) 258-1010
<http://www.cldinternational.org>
Kirsten McBride, Executive Director

Jean Baton Swindells Resource Center for Children and Families

The Swindells Center provides assistance, information, resources and education on a range of disability-related topics to families, caregivers and friends of children with special needs, including learning disabilities. The Swindells Center was established as a drop-in facility within the Providence Child Center in Portland, OR.

The Swindells Center features the E.L. Wiegand Foundation Library, which provides information access on childhood illnesses and conditions. The information is available in videos, audiotapes, periodicals, books and staff-assisted computer searches. Topics include:

- Learning disabilities
- ADD/ADHD
- Medically fragile children
- Epilepsy
- Autism spectrum disorders
- Cerebral palsy
- Down syndrome
- Sensory integration

For more information, contact:
Jean Baton Swindells Resource Center
3510 NE 122nd Ave., Suite 101
Portland, OR 97230
Phone: (503) 215-2429
Fax: (503) 215-2478
Email: swindells@providence.org

[http://www.providence.org/Oregon/Programs and Services/ChildCenter/e15swindells.htm](http://www.providence.org/Oregon/Programs%20and%20Services/ChildCenter/e15swindells.htm)

National Center for Learning Disabilities (NCLD)



NCLD was established under another name in 1977 by Carrie Rozelle, wife of former National Football League commissioner Pete Rozelle and assumed its current name in 1989. Programs were initiated that focused on educational, public awareness and advocacy activities for children with learning disabilities. In 2000, the organization retargeted its mission, with a focus on promoting early identification and intervention as well as injecting research-based strategies into classrooms.

NCLD provides information on living with LDs throughout an individual's lifespan while promoting understanding of the ways society can capitalize on the abilities of persons with LDs via early intervention and treatment. In an effort to bridge the gulf between classroom and practice, the Center collaborates with scientific, health and literacy organizations to identify effective learning strategies while emphasizing the early identification and treatment of LDs. NCLD is among the very few organization's dedicated to learning disabilities to operate a public policy office in Washington, DC.

For further information on the Center, contact:

NCLD
381 Park Avenue South, Suite 401
New York, NY 10016
Phone: (212) 545-7510/
(Toll Free): 1-888-575- 7373
Fax: (212) 545-9665
<http://www.nclid.org>

James H. Wendorf, Executive Director



Please join our discussion of
Assistive Technology in Support of Learning Disabilities

Led by national expert

Richard Wanderman

April 12 – May 7, 2004

Share your questions, comments, experiences and concerns.

Hear from others in the field.

Learn from the experts.

At any time throughout the month,

go to <http://www.fctd.info>

and follow the link to the discussion.

We hope to see you there!

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