Focus on Basics

CONNECTING RESEARCH & PRACTICE

Broca's area
Inferior frontal gyrus
(articulation/ word analysis)

Parieto-temporal
(word analysis)

Occipito-temporal
(word form)

The Neurobiology of Reading and Dyslexia

by Sally E. Shaywitz & Bennett A. Shaywitz

Developmental dyslexia is defined as an unexpected difficulty in reading in adults and children who otherwise possess the intelligence and motivation considered necessary for accurate and fluent reading and who also have had reasonable reading instruction. Dyslexia (or specific reading disability) is the most common and most carefully studied of the learning disabilities, affecting 80 percent of all individuals identified as learning disabled. This article reviews recent advances in the neurobiology of dyslexia and their implications for adults with dyslexia; it provides an update to a previous article we wrote for Focus on Basics.

Welcome!

It's ok to be confused. Yes, in November 2006, I announced in this column that you were reading the final issue of the NCSALL's Focus on Basics. *And, in a sense, you were. However, World Education, the private non-profit organization that was responsible for NCSALL's dissemination activities, has decided to publish a few more issues. So we're back, and in this issue we're examining learning disabilities.*

Dyslexia is the most common type of learning disability (LD) so we started there, with recent insights into the neurobiology of dyslexia. In our cover article Drs. Sally and Bennett Shaywitz, Yale University, New Haven, CT, remind us that dyslexia does not resolve over time. Skilled instruction combined with assistive technology and accommodations, however, can level the playing field for adults with dyslexia.

Skilled instructor Marn Frank, Minneapolis, MN, shares not just her approach to teaching students with LD but also the journey she took to arrive at her techniques. Experienced teachers will see themselves in her story; they'll also be heartened to know that many more resources are available now to jumpstart the learning curve for colleagues who are just now beginning their teaching careers (page 8).

States, too, are working hard to ensure that adult basic education (ABE) programs are well equipped to serve students with LD. Across the nation, certain similarities emerge, the greatest being that it takes perseverance to move from policy to truly effective implementation. Read Debbie Reck's account of the long road to Universal Design in Washington state (page 12), Sharon Reynolds and Katrina Seymour's discussion of the use of professional development to support changes in practice in Ohio (page 37), and Patti White's chronology of Arkansas' progress in equipping programs to serve adults with LD on page 41.

Assistive technology is of great benefit to learners with LD, and the rise in affordable ~ or free ~ computer programs has made many formerly prohibitive assistive technologies into practically household items. Technology specialist Heidi Silver-Pacuilla, Washington, DC, walks us through the many technologies that may be useful students with LD. Don't forget, she writes on page 16, that teaching how to use the technology is as important as the technology itself.

Discerning whether learners of English for speakers of other languages (ESOL) are learning disabled or having learning difficulties is never easy. Robin Lovrien Schwarz, Wausau, WI, details six categories, from instructional through cultural through phonological issues, that may impede ESOL students' learning; she also suggests ways to address them (page 20). Follow the Carlos Rosario International Charter School's efforts to put these principles into practice as they change they way they serve their adult ESOL students, chronicled by Alice-Ann Menjivar (page 26).

Students with learning disabilities who make the transition from ABE to college need a variety of study and advocacy skills to succeed in higher education. Are ABE programs providing them? Gabrielle Gerhard wonders about this as she shares the stories of three former ABE students with LD who floundered in community college (page 34).

Legal issues always arise in any discussion of learning disabilities. LD advocate Glenn Young spoke with *Focus on Basics* about the laws and related legal responsibilities of literacy programs that enroll adults with LD (see page 31).

This issue is really just a beginning. The Internet has a wealth of information on all aspects of LD. We've included with almost every article a number of URLs where you can find additional information, and shared other resources, such as the LD electronic discussion list, in the Blackboard, page 42.

Thanks again to World Education for bringing you this issue of *Focus on Basics*. And thanks to all of you for reading it.

Sincerely,

Barbara Garner

Barbara Garner
Editor

Reading and Dyslexia

Epidemiology of Dyslexia

Epidemiological data indicate that, like hypertension and obesity, dyslexia occurs in gradations and fits a dimensional model. In other words, within the population, reading ability and reading disability occur along a continuum, with reading disability representing the lower tail of a normal distribution of reading ability. Dyslexia is perhaps the most common neurobehavioral disorder affecting children, with prevalence rates ranging from 5 to 17.5 percent. While some may question whether, in fact, so many children are struggling to read, data from the 2005 National Assessment of Educational Progress indicate that only 31 percent of fourth graders are performing at or above proficient levels (Perie et al., 2005).

Dyslexia does not resolve over time. Thus, longitudinal studies, both prospective and retrospective, indicate that dyslexia is a persistent, chronic condition; it does not represent a transient "developmental lag." Over time, poor readers and good readers tend to maintain their relative positions along the spectrum of reading ability; children who early on function at the 10th percentile for reading and those who function at the 90th percentile and all those in-between tend to maintain their positions (Francis et al., 1996).

Etiology

Dyslexia is both familial and heritable. Family history is one of the most important risk factors, with 23
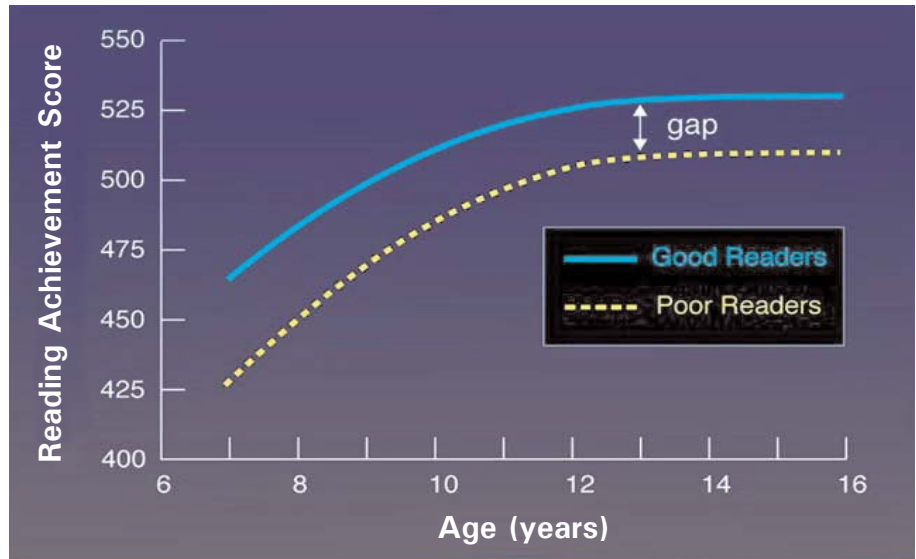

Figure 1. Trajectory of reading skills over time in nonimpaired and dyslexic readers. Ordinate is Rasch scores (W scores) from the Woodcock-Johnson reading test (Woodcock & Johnson, 1989) and abscissa is age in years. Both dyslexic and nonimpaired readers improve their reading scores as they get older, but the gap between the dyslexic and nonimpaired readers remains. Thus dyslexia is a deficit and not a developmental lag. Figure derived from data in an article by Francis and colleagues (Francis et al., 1996) and reprinted with permission (S. Shaywitz, 2003).

percent to as much as 65 percent of children who have a parent with dyslexia reported to have the disorder (reviewed in S Shaywitz, 2003). A rate among siblings of affected persons of approximately 40 percent and among parents ranging from 27 to 49 percent provides opportunities for early identification of affected siblings and often for delayed but helpful identification of affected adults such as a parent of the child known to be dyslexic. Genes on four chromosomes, 2, 6, 15, and 18, have been implicated in dyslexia (Fisher & DeFries, 2002). These findings of a strong genetic influence have educational implications; if a child has a parent or sibling who is dyslexic, that child should be considered at-risk and observed carefully for signs of a reading difficulty. It is also important to

emphasize that although a child may have dyslexia on a genetic basis, that child will respond to and benefit from an evidence-based reading intervention.

The Cognitive Basis of Dyslexia

Among investigators in the field, there is now a strong consensus supporting the phonological theory (reviewed in Ramus et al., 2003). This theory recognizes that speech and language are acquired naturally, whereas reading must be taught. To read, the beginning reader must recognize that the letters and letter strings (the orthography) represent the sounds of spoken language. In order to read, a person has to develop the insight that spoken words can be pulled apart into the elemental

Figure 2 (on cover). Neural systems for reading. Three neural systems for reading are illustrated in this figure of the surface of the left hemisphere: an anterior system in the region of the inferior frontal gyrus (Broca's area) believed to serve articulation and word analysis; two posterior systems, one in the parieto-temporal region believed to serve word analysis, and a second in the occipito-temporal region (termed the word-form area) and believed to serve for the rapid, automatic, fluent identification of words. Reprinted with permission (S. Shaywitz, 2003).

particles of speech (phonemes) and that the letters in a written word represent these sounds; such awareness is largely missing in dyslexic children and adults (reviewed in S. Shaywitz, 2003). Results from large and well-studied populations with reading disabilities confirm that in young school-age children as well as in adolescents a deficit in phonology represents the most robust and specific correlate of reading disability (S. Shaywitz et al., 1999). Such findings form the basis for the most successful and evidence-based interventions designed to improve reading.

Implications of the Phonologic Model of Dyslexia

Reading entails two main processes: decoding and comprehension. In dyslexia, a deficit at the level of the phonologic module impairs the ability to segment the spoken word into its underlying phonologic elements and then link each letter(s) to its corresponding sound(s). As a result, the reader experiences difficulty, first in decoding the word and then in identifying it. The phonological deficit is domain-specific; it is independent of other non-phonological abilities. In particular, the higher order cognitive and linguistic functions involved in comprehension, such as general intelligence and reasoning, vocabulary, and syntax, are generally intact. This pattern, a deficit in phonologic analysis contrasted with intact higher-order cognitive abilities, offers an explanation for the paradox of otherwise intelligent, often gifted, creative people who experience great difficulty in reading. According to the model, a circumscribed deficit in a lower-order linguistic function (phonology) blocks access to higher-order language processes. The problem is that the affected reader cannot use his or her higher-order linguistic skills to access the meaning until the printed word has first been decoded and identified.

The Phonologic Deficit in Adolescence and Adult Life

Deficits in phonological coding continue to characterize dyslexic readers even in adolescence; performance on phonological processing contributes most to discriminating dyslexic and average readers, and average and superior readers as well. Children with dyslexia neither spontaneously remit nor do they catch up with their peers in the development of reading skills. That is not to say that many dyslexic readers do not become proficient in reading a finite domain of words that are in their area of special interest, usually words that are important for their careers. For example, an individual who is dyslexic in childhood but who, in adult life, becomes interested in nursing and who then learns to decode words that form a mini-vocabulary important in nursing. Such individuals, while able to decode words in this domain, still exhibit evidence of their early reading problems when they have to read unfamiliar words, which such a person may do accurately, but not fluently and automatically.

In adolescents and adults, oral reading, the rate of reading, as well as facility with spelling may be most useful clinically in differentiating average from poor readers. From a clinical perspective, these data indicate that as children approach adolescence, a manifestation of dyslexia may be a very slow reading rate; in fact, children may learn to read words accurately, but they will not be fluent or automatic, reflecting the lingering effects of a phonologic deficit. Because they are able to read words accurately (albeit very slowly) dyslexic adolescents and young adults may mistakenly be assumed to have "outgrown" their

dyslexia. Data from studies of children with dyslexia who have been followed prospectively support the notion that in adolescents, the rate of reading as well as facility with spelling may be most useful clinically in differentiating average from poor readers in students in secondary school, college, and even graduate school (S. Shaywitz, 2003). These older dyslexic students may be similar to their unimpaired peers on untimed measures of word recognition

> ## "*Dyslexia does not resolve over time.*"

yet continue to suffer from the phonologic deficit that makes reading less automatic, more effortful, and slow. For these readers with dyslexia the provision of extra time is an essential accommodation; it allows them the time to decode each word and to apply their unimpaired higher-order cognitive and linguistic skills to the surrounding context to get at the meaning of words that they cannot entirely or rapidly decode.

Neurobiological Studies of Disabled Readers

Neural systems influencing reading were first proposed over a century ago by Dejerine, a pioneer in the study of the localization of functions in the brain, in studies of adults who suffered a stroke with subsequent acquired alexia, the sudden loss of the ability to read. It has only been within the last two decades that neuroscientists have been able to determine the neural systems that influence reading and reading disability. This explosion in understanding the neural bases of reading and dyslexia has been driven by the development of functional neuroimaging, techniques that measure changes in metabolic activity and blood flow in specific brain regions while subjects are engaged in cognitive tasks.

A number of research groups, including our own, have used functional brain imaging to examine the functional organization of the brain for reading in non-impaired and dyslexic readers. Converging evidence points to three important neural systems for reading in children and adults: one anterior system and two posterior systems. The anterior system, located around the inferior frontal gyrus, and the posterior system in the parieto-temporal region are involved in word analysis (decoding). A second posterior system located in the occipito-temporal region, an area which Cohen and Dehaene (Dehaene et al., 2005) have termed the visual word-form area, is associated with the ability to read words fluently and automatically, the hallmark of a skilled reader. The figure on the cover illustrates these systems.

These investigations have consistently demonstrated a failure of left hemisphere posterior brain systems to function properly in dyslexic readers and further indicate that dysfunction in left hemisphere posterior reading circuits is already present in dyslexic children and cannot be ascribed simply to a lifetime of poor reading (reviewed in Price & Mechelli, 2005; S. Shaywitz & Shaywitz, 2005). This disruption in posterior neural systems, especially the disruption in the word form area (believed to be where rapid automatic, fluent identification of words occurs) during reading has been termed the "neural signature for dyslexia." The significance of the neural signature for dyslexia can not be overstated. For the first time there is now unequivocal neurobiological evidence that what has always been considered a hidden disability is "real."

fMRI in Reading Interventions

Functional imaging has also been helpful in examining whether the neural systems for reading are malleable and whether the disruption in these systems in struggling readers can be modified by an effective reading intervention. Compared to struggling readers who received other types of intervention, children who received an experimental intervention (which focused on evidence-based application of the alphabetic principle) not only improved their reading but, compared to pre-intervention brain imaging, demonstrated increased activation in the neural systems for reading. Other investigators, too, have found that an effective reading intervention influences neural systems in the brain (reviewed in Shaywitz & Shaywitz, 2005). These data have important implications for public policy regarding teaching children to read: the provision of an evidence-based reading intervention at an early age improves reading fluency and facilitates the development of those neural systems which underlie skilled reading.

Functional Brain Imaging in Adults with Childhood History of Dyslexia

Functional magnetic resonance imaging also has been helpful in clarifying potentially different types of reading disability in adults with a childhood history of dyslexia. We used data from the Connecticut Longitudinal Study, a representative sample of young adults who have been prospectively followed since 1983 when they were age five years and who have had their reading performance assessed yearly throughout their primary and secondary schooling (reviewed in S. Shaywitz, 2003, pages 26-35). Three groups were identified and imaged: 1) non-impaired readers who had no evidence of reading problems; 2) accuracy improved readers who were inaccurate readers in third grade but by ninth grade had compensated to some degree so they were accurate (but not fluent); 3) persistently poor readers who were inaccurate readers in third grade and remained inaccurate and not fluent in ninth grade.

Non-impaired   **Dyslexic**
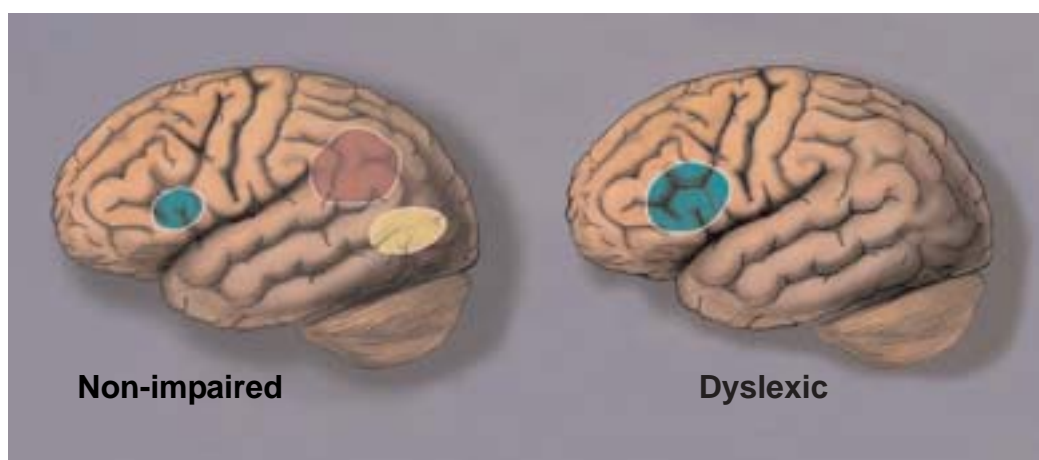
Figure 3. A neural signature for dyslexia. Schematic view of left hemisphere brain systems for reading observed during fMRI in nonimpaired (left) and dyslexic (right) readers. In nonimpaired readers, three systems are evident: one anterior in the area of the inferior frontal gyrus and two posterior, the top system around the parieto-temporal region and the bottom system around the occipito-temporal region. In dyslexic readers, the anterior system is slightly overactivated compared to non-impaired readers; in contrast, the two posterior systems are underactivated. This pattern of underactivation in left posterior reading systems is referred to as the neural signature for dyslexia. Figure reprinted with permission (S. Shaywitz, 2003).

During real word reading, brain activation patterns in the accuracy improved readers and persistently poor readers diverged, with accuracy improved readers demonstrating the typical disruption of posterior systems, but with persistently poor readers activating posterior systems, similar to that observed in non-impaired readers, despite the significantly better reading performance in non-impaired compared to persistently poor readers on every reading task administered. Evidence indicated that rather than decoding words, the persistently poor group was reading primarily by memory.

A more recent fMRI study (B. Shaywitz et al., 2007) also demonstrates the importance of memory systems in dyslexic readers. This study found that brain regions developing with age in dyslexic readers differ from those in non-impaired readers, primarily in being localized to a more left posterior and medial, rather than a more left anterior and lateral occipito-temporal region. This difference in activation patterns between dyslexic and non-impaired readers has parallels to reported brain activation differences observed during reading of two Japanese writing systems: Kana and Kanji. Kana script employs symbols that are linked to the sound (comparable to English and other alphabetic scripts); Kanji script uses ideographs where each character must be memorized. In the imaging study of these writing systems, activation, similar to that seen in non-impaired readers, occurred during reading Kana. In contrast, activation, comparable to that observed in dyslexic readers, was noted during reading of Kanji script, suggesting that the portion of the word form region developing in dyslexic readers functions as part of a memory-based system. The importance of compensatory memory systems in

dyslexic readers is significant and may help explain how many very bright dyslexic adults are able to function so well in their chosen professions.

Because it is a longitudinal study, data from the Connecticut Longitudinal Study as early as kindergarten and first grade were available and indicated that the two groups of disabled readers (persistently poor and accuracy improved readers) began school with comparable reading

> "*…if such students are to demonstrate the full range of their knowledge, provision of additional time on examinations is a necessity to compensate for the lack of availability of the efficient word form area.*"

skills but with persistently poor compared to accuracy improved readers, having poorer cognitive, primarily verbal, ability and attending more disadvantaged schools.

These findings suggest that persistently poor readers may be doubly disadvantaged in being exposed to a less rich language environment at home and then less effective reading instruction at school. In contrast, protective factors in the accuracy improved readers, for example, the presence of compensatory factors such as stronger verbal ability and exposure to a richer language environment at home, allowed the accuracy improved readers to minimize, in part, the consequences of their phonologic deficit so that as adults accuracy improved readers were indistinguishable from non-impaired readers on a measure of reading comprehension.

These findings of differences neurobiologically, cognitively, and educationally suggest that the two types of reading disability we observed in the Connecticut Longitudinal sample may represent different etiologies. The compensated group (accuracy improved

readers), with early higher verbal ability and a disruption in posterior systems during reading real words may represent a primarily genetic type of reading disability; we would postulate that such children represent the classic dyslexic reader with an unexpected difficulty in reading. Alternatively, the persistent group who score lower on verbal measures early on and who attend more disadvantaged schools, may have their reading difficulties influenced more by environmental factors. Obviously, other factors may be operating as well and some of each factor, genetic and environmental may be contributing to the reading problems of many. On-going studies of genetic differences between these groups may help confirm or refute this hypothesis.

Accommodations

The considerable neurobiological data reviewed above provides strong support for the use of accommodations by the dyslexic reader. Thus, disruption of the word form area means that the dyslexic reader must develop alternate, compensatory neural pathways and these systems support increased accuracy over time. However, the word form region does not develop and compensatory pathways do not provide fluent or automatic reading. Accordingly, if such students are to demonstrate the full range of their knowledge, provision of additional time on examinations is a necessity to compensate for the lack of availability of the efficient word form area. Such neurobiological findings should make testing agencies, certification boards and others more willing to allow children and adolescents with dyslexia to receive accommodations on high stakes tests.

Specific accommodations are discussed in detail in *Overcoming Dyslexia* (S. Shaywitz, 2003) and are just briefly reviewed here. As students progress through school to higher grades and compensate in reading accuracy, simple reading measures of word identification fail to capture difficulties in fluent reading and so are often misleading. In older children, a history of reading-related difficulties and lack of fluency are indicative of dyslexia. For older children and adults with dyslexia, accommodations generally involve provision of extra time. This allows dyslexic readers who we now know have a disruption in the word form area influencing skilled, fluent reading to be on a level playing field with their peers who do not have a reading disability.

Accommodations also involve providing the dyslexic student with the use of assistive technologies, allowing the student to acquire information via an aural route rather than through reading. In addition, since such non-automatic readers must call upon attentional resources during reading, they are highly susceptible to noise and distractions. Study and test-taking in quiet, separate rooms allow these dysfluent readers to concentrate and make maximum use of their often strained attentional resources. This allows dyslexic readers to gain information that their peers are obtaining by reading.

With provision of such accommodations, dyslexic students are entering and succeeding in a range of professions including journalism, literary writing, science, medicine, law, and education. The utilization of advances in neuroscience to inform educational policy and practices provides an exciting example of translational science being used for the public good.

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WORLD EDUCATION

The Evolution of an Adult Literacy Teacher

by Margaret (Marn) Frank

*T**he dictionary definition of evolution is "a process of change in a certain direction." This certainly describes my evolution as an adult literacy teacher; it has been a 15-year process of change in the direction of helping adult students—who do or don't have learning disabilities (LD)—improve their reading skills. As with any process of change, there has been failure and success; there has been frustration and reward. I hope that sharing my hard-earned knowledge will benefit others by leading to improved adult reading instruction by teachers and enhanced literacy skills in students.*

A Change in Career

I began my career as an adult literacy teacher in the winter of 1992. I had just moved to a mid-sized town in Minnesota with my husband and our two preschoolers. Prior to that, I had been an elementary teacher and special education teacher in the areas of emotional and behavioral disorders and specific learning disabilities. I was looking for a volunteer opportunity to maintain my teaching skills and meet new people. I attended an informational meeting for volunteer adult literacy tutors, asked a few questions, and filled out the application, anticipating a relaxed, one-to-one situation where I would teach a grateful adult how to read. After about a month, the lead teacher called to offer me not a tutoring slot but a job as co-teacher in her adult basic education (ABE) classroom.

My new classroom was a mix of mostly unemployed American-born students who needed to improve their basic skills or complete their tests of General Educational Development (GED). The lead teacher and I assumed that if their stated goal was "to get a GED" they had reading skills close to the high school level. Our primary assessment tools were GED practice tests; we used the students' attempts to determine readiness for official testing. Some students' employment counselors provided us with reading and math grade equivalents. We started all students who weren't ready for GED preparation in the *Challenger* series, an eight-level adult reading curriculum from New Reader's Press. As students worked independently, we circulated around the room answering questions, checking GED lessons and practice tests, reading and listening to passages or stories, and occasionally providing a quick phonics, vocabulary, writing, or math lesson.

I did my best to provide useful one-on-one attention and establish relationships with my students, but I did not have a clue as to how to offer effective reading instruction within this mixed setting. My special education background led me to suspect that several had LD, defined by the National Joint Commission of Learning Disabilities as "a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction, and may occur across the lifespan" (1988). When I was brave enough to ask a student about past special education services, I received only a vague or reluctant response. Some mentioned getting special help, but were unsure about the type of services, and a few even seemed offended by my asking. I decided that individual attention was the best I could do given the limited educational history available to me.

Changing Teaching Experiences

By the fall, 1994, I was the lead ABE teacher, and the program moved to the local community college. Early in the school year, a student named Mary walked into my morning class and told me she wanted to learn to read. I immediately started her in *Challenger 1*. She came to class almost every day, and I read the word lists that preceded each lesson and the lesson story with her as often as I could. I also made audiotapes of the lesson stories so she could listen to them over and over. At first, I suspected Mary had LD, but as I got to know her, I realized her significant reading difficulties were educational and cultural, not neurological. As the oldest child from a large Mexican-American family living and working in Texas, she had only attended school a few days a year, just long enough to satisfy school officials. More often she worked in the fields with her parents to make money to feed the rest of the family. During two years of solid attendance in ABE, Mary progressed through *Challenger 1*, *2*, and *3*. She insisted on mastering each word list and story before moving on to the next lesson. She thanked me repeatedly for teaching her to read; I was aware, however, that Mary had learned to read mostly through her own efforts. I had not provided systematic beginning reading instruction.

At the start of the following school year, another student was referred to my morning class by her employment counselor. Her name was Jamie; she

was a young, single mother of two who was required to work on her GED. Jamie reported receiving special education services in her home state of Oklahoma, but she did not know her diagnosis or categorical placement. By this time, I was using GED practice testing to screen for placement in pre-GED or GED-level materials. If students scored less than 45, which was considered passing, I recommended a pre-GED workbook. If they scored above 45, I recommended a GED workbook. Jamie scored less than 40 and she agreed to begin working from a pre-GED science workbook. She came to class regularly and asked for help with many "big words" and challenging comprehension questions. We listed words she did not know in a notebook and reviewed them together. We calculated the percentage of multiple-choice answers she got right to measure her progress and maintain her motivation. After she completed all five pre-GED workbooks, Jamie moved to GED-level workbooks. Once she finished both a pre-GED and GED subject workbook, she took the official GED test. Eventually, she passed all five GED tests and enrolled in a dental assistant program. I was aware that Jamie's willingness to ask for help with decoding, vocabulary, and comprehension led to her reading progress and GED success. As with Mary, I responded to what she asked for; I did not deliberately offer effective intermediate reading instruction.

Throughout the eight years I worked as an adult literacy classroom teacher, many students came and went through my doors. Those with significant reading difficulties were the hardest to serve in a mixed setting. They wanted to learn, I wanted to teach, but I fumbled with a variety of methods, materials, software, and not enough direct teaching time. My most successful strategy was to pair them with a dedicated tutor who gave them one-on-one attention and supported their classroom work.

Ideas for Change

In 2001, after another family move, I was hired by the Learning Disabilities Association (LDA) of Minnesota to provide ABE statewide supplemental services in the area of LD and related learning difficulties. In 2003, my previous experiences as an adult literacy teacher along with my new experiences as a learning disability specialist inspired me to focus on adult reading instruction. After completing four years of job-related activities such as research reviews, resource writing, testing, tutoring, coaching, training, and facilitating practitioner research, I finally feel like I have evolved into an

> "*Most of my students soon realize their lifelong reading difficulties are more about instruction and less about them*"

effective adult literacy teacher and trainer. What have I learned? What have I changed? What seems to work for the adults I teach and the teachers I train? What do they tell me works for them? Following are four changes I have made in my own reading instructional practice and recommend in my trainings for Minnesota ABE. They are easily duplicable for small or large groups (as demonstrated by many ABE teachers and tutors).

Use informal word analysis or word reading assessment to plan more effective reading instruction

Many beginning and intermediate students (especially those with LD) do not have mastery of English alphabetics and need direct instruction in sequential phonics or decoding

strategies. To provide this instruction effectively and systematically, we need to find out what they know and don't know. I use two free reading inventories from the Adult Reading Components Study (ARCS) at www.nifl.org/readingprofiles: (1) *Sylvia Greene's Informal Word Analysis Inventory* and (2) the *Word Reading Test* (WRT) from the *Quick Adult Reading Inventory* (QARI). I pre-test beginning students with *Sylvia Greene* to determine sound/letter knowledge and intermediate students with the WRT to determine a word reading level. Pre-testing with the appropriate inventory allows me to develop prescriptive reading instruction that addresses my students' specific phonics or decoding needs. Post-testing with the same word inventory offers an alternative measure of progress that may increase student motivation and persistence. Overall, my beginning students appreciate my efforts to determine what they know and don't know and often tell me sequential phonics instruction is what they have been missing for years. When I explain this is the case for most beginning-level ABE students (see, for example, ARCS at www.nifl.org/readingprofiles), it seems to ease feelings of frustration and failure. My intermediate students are relieved to hear I will teach them flexible decoding strategies for breaking down "big words" that will improve their word reading, fluency, and comprehension. Most of my students soon realize their lifelong reading difficulties are more about instruction and less about them.

Based on the results from word inventories, provide regular "word study" individually or in groups

I define word study as planned and directed instruction and practice of English sound (phoneme), letter (grapheme), word, and syllable patterns combined with vocabulary

development. At beginning levels, word study includes systematic and sequential phonics as outlined below:

1. Explain and pronounce the sound/letter pattern
2. Model pronouncing a correlated one-syllable word list
3. Have the students reread the word list until mastery (three or more times)
4. Dictate the same words for spelling practice until mastery (90 percent correct)
5. Have students write and read their own phrases or sentences for contextual practice
6. If appropriate, provide "extended" word study with simple compounds or suffixed words

At intermediate levels, word study includes direct instruction in syllabication, bases or roots, prefixes, and suffixes using word lists generated from content materials such as newspapers, reading and language series, or pre-GED or GED workbooks.

For individual instruction, the student lists 10 to 12 words she finds difficult to read or understand from her content material in a personal word journal. For group instruction, I recommend pre-selecting 10 to 12 words from classroom content material or subject lists such as *The Reading Teacher's Book of Lists* or *EDL Core Vocabulary* (see publisher Web sites at the end). As with beginning word study, model segmenting (into syllables or word parts) and blending (into whole words), and allow the student(s) to practice pronunciation until mastery.

It takes way too much time to dictate all multi-syllable words for spelling, but five to 10 practical words will reinforce phonological processing. Selected word lists can be expanded to include other related words (i.e. colony, colonies, colonists, colonial, colonialism), but beware of word overload. The skills required for proficient multi-syllable decoding and

encoding are new for most intermediate students and often very challenging. One of my students recently said to me: "I feel like I am learning a foreign language. My tongue gets all twisted up in these big words."

Balance word study with modeled and repeated oral reading using meaningful and authentic text

It is so important to experience "real reading" and understand the links between decoding, fluency, and comprehension. For beginning-level Minnesota ABE students, I am creating a curriculum called *Story by Story*, a series of easy (grade equivalent, or GE, 0.5 to GE 2.5), "adult-authentic" stories aligned with the phonics sequence assessed by Sylvia Greene's *Informal Word Analysis Inventory*. I also use a fluency series created by Marshall Adult Basic Education called *Reading Skills for Today's Adults*. This free online series includes a wide variety of stories ranging in readability from GE 0.7 to GE 8.0 (see Web site at the end). For my intermediate students, I use articles from *News for You* from New Reader's Press, the local newspaper, or high interest/low vocabulary materials from a variety of publishers. For GED students, short passages (about 100 to150 words) from pre-GED and GED lessons can be used for individual or group oral reading.

I always begin by asking my students what they already know about the topic or title to establish prior knowledge. This brief discussion emphasizes their strength in oral language, reinforces word study, and often applies directly to what we will be reading. Then I read aloud one paragraph at a time to model appropriate accuracy, rate, and expression. They read the same paragraph aloud and I am often surprised at how well they imitate my fluent reading. Ideally, the selected text should be repeated three or four times to achieve mastery or 90 percent

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Measured Changes

My ideas for change have made me feel like a more effective reading teacher. They have also resulted in measured (and observed) changes for the students I tutor.

Tyrell is severely dyslexic; when he started being tutored he was a nonreader. After 32 hours of tutoring, he improved his word reading by 0.6 year and his reading fluency by about 1.0 year as measured by pre- and post-testing using the Woodcock Johnson III Tests of Achievement. He continues to make wonderful progress learning to read short contextual phonics stories accurately and fluently within one-hour sessions.

Alex, diagnosed with moderate dyslexia, had a foundation of phonics knowledge and syllabication, but struggled to read newspapers and books and spell words. After 18 hours of tutoring, he improved his word reading by 1.7 years, his spelling by 1.0 year, and his comprehension by 4.3 years as measured by pre- and post-testing using the Woodcock Johnson III Tests of Achievement. He continues to work on multi-syllable decoding skills and has ventured into e-mail communication and essay writing with the assistance of spell check software.

Sherlene, also diagnosed with moderate dyslexia, had limited phonics knowledge. She was able to sight read at a functional level, but struggled with spelling and writing. After 32 hours of tutoring, she improved her spelling 1.0 year and reading fluency 0.8 year as measured by pre- and post-testing using the Woodcock Johnson III Tests of Achievement. She left tutoring feeling more confident about her potential to become a reader, writer, and worker.❖

accuracy. Over time, my students see the benefits of repeated oral reading, and we thoroughly enjoy reading aloud together. My beginning students are thrilled to be able read a story aloud near perfect. My intermediate students are better able to "hang on" to the meaning of the text because there are fewer breakdowns in decoding and fluency. They also acquire the understanding that reading comprehension is a process that requires interaction with the text, not just reading the words.

Introduce assistive technology tools to increase independence with reading and writing tasks

For many adults, especially those with LD, reading progress can be slow and sometimes they get discouraged with the pace of instruction. When I sense impatience or discouragement, I begin introducing simple assistive technology such as keyboarding, word processing, and speaking dictionaries. I teach them how to use the basic features of a word processing program such as opening a new document, writing with the keyboard, spellchecking, saving, printing, and opening a saved document. Then I have them practice word processing by dictating their spelling words to them while they are at the computer and encourage them to create sentences for each word. One of my favorite "low-tech" tools is a Franklin speaking dictionary, which has text to speech capability for individual words and meanings. When an unknown word is typed into this little machine and the "SAY" button is pressed, the word is pronounced. Although the speaking voice is rather mechanical, most American-born students are able to recognize the word. If the student needs to hear the meaning, another function will speak the text of the definition. Several of my students have purchased their own Franklin speaking dictionaries and use them at home

while they read their mail or the newspaper. This allows them to be more independent readers and try more challenging reading material. Introducing and supporting the use of assistive technology allows them to feel a part of the technological world, a world they often feel left out of because of their reading difficulties. (For more on assistive technology, turn to page 16.)

The Rewards of Change

When I think back to my work with Mary and Jamie and other struggling adult readers, I recognize that I tried my best, but I did not really provide effective adult reading instruction. I used only tests of silent reading comprehension to make instructional decisions. I provided some word study, but it was hit-or-miss, only occurred when students asked, and I never dictated for spelling practice. If I had time, I listened to them read aloud, but I did not provide modeling or have them repeat until mastery.

Now when I sequentially present phonics word lists for reading and spelling practice, I can almost see the phonological processing going on in my beginning students' brains as they develop the essential phonemic awareness skills of blending and segmenting. When I intentionally teach about syllables, syllabication,

roots, prefixes, and suffixes, I am learning English linguistics right along with my intermediate students. When I regularly provide fluency training (modeling and repeated oral reading) for all my students, I give them the opportunity to feel like readers and gain confidence in their skills. My hard-earned knowledge and subsequent changes in reading instruction help them unlock the mysteries of the English language and the complexities of the reading process. And I am rewarded over and over again by giving them the keys.

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National Joint Committee on Learning Disabilities. (1988). *Collective Perspectives on Issues Affecting Learning Disabilities: Position Papers and Statements.* Austin, TX: National Joint Committee on Learning Disabilities.

About the Author

Margaret (Marn) Frank is the adult services coordinator for the Learning Disabilities Association of Minnesota and a supplemental services provider for Minnesota ABE. She provides LD assessment and consultation, tutoring and coaching in reading, and staff and resource development. She continues to evolve as an adult literacy teacher and trainer.❖

Instructional Resources and Web Sites

Challenger and *News for You* (New Reader's Press) www.newreaderspress.com

EDL Core Vocabulary (Steck-Vaughn) www.steck-vaughn.com

Merriam-Webster®Speaking Dictionary & Thesaurus (Franklin Electronic Publishers) www.franklin.com

Reading Skills for Today's Adults (Marshall Adult Education) www.marshalladulteducation.org

Story by Story, a contextual phonics model and curriculum for American-born adults - Level I (LDA of Minnesota) www.ldaminnesota.org

The Reading Teacher's Book of Lists (Jossey-Bass) www.josseybass.com/WileyCDA/.❖

Making Universal Design a Reality

Practitioners in Washington state found perseverance pays off when it comes to systemic change

by Deborah Reck

What is a learning-friendly environment for students with learning disabilities? Renton Technical College in Washington State believes it has found an answer. When students enter many of the vocational or adult basic education (ABE) programs at Renton Technical College, they enter classrooms staffed by instructors who have had extensive training in multi-modal or multi-sensory teaching, assistive technologies, strategies to help students with learning disabilities (LD), and brain research. It is common to see electronic interactive white boards, computer screen recorders for student demonstrations, tablet laptops that capture handwritten notes and turns them into text, liquid-crystal display (LCD) projectors that project documents or pictures on a large screen for all the class to see, and digital document display magnifiers which connect to an LCD projector to show objects or documents and capture the display onto the hard drive. Specialists move in and out of these classrooms and trained peer tutors help any student experiencing difficulties. When students go to one of the many learning labs available to all students, they can readily access assistive technology such as Wynn Reader, *a program that reads scanned text aloud, colorizes, and easily changes the text display;* Test Talker, *which converts any test into a spoken format;* Inspiration, *a writing tool and graphic organizer; and* Dragon Naturally Speaking, *a program that types as the speaker talks. Nothing designates an area for the learning disabled because these interventions are available to all students at Renton Technical College. Teachers and staff encourage everyone to take advantage of these tools.*

When students take classes at Renton Tech, they are likely to begin by taking a Web-based assessment called the Learning Assessment System (LAS) Webtool. Via the LAS, students assess their learning strengths and barriers and receive a report that suggests customized resources and strategies to help them be successful learners. The LAS includes a validated learning styles assessment from the Center for Innovative Teaching Experiences (CITE). One of the features of the LAS is an assessment of learning barriers done through a series of questions written by Renton Tech instructors. These questions draw on instructors' knowledge of learning issues in combination with other screening tools such as the 13 Question Learning Needs Screening Tool, an instrument that is used in many programs across the United States. Instructors can view each student's LAS report as well as a summary report that profiles individual classes and relevant teaching strategies. Any of these reports can be viewed by the Learning Disabilities Specialist or the Disabled Student Services counselors as well when students are referred to or come to these offices for help. To see a brief demonstration of the LAS Webtool, go to the UDL Project Web site at webs.rtc.edu/ii/dsdp.html and look at "Learning Styles". Hard copies of the Webtool assessment and action plan forms are available on the site for downloading.

The Renton Tech model of service delivery is based on a simple three-tiered process (see the diagram on page 13). In the traditional community college model, most of the resources go towards accommodations for a few students and few resources are allocated to the classroom for the whole class. In the Renton model, the pyramid is tipped upside down so that the bulk of resources is delivered in the classroom through UDL.

Tier 1 ensures that effective teaching strategies and assistive technologies are used in all classrooms. Many of these strategies and technologies are commonly considered accommodations for students with disabilities but are suitable for all learners. "Normalizing" their use helps all students while reducing the stigma that some students with learning disabilities report having felt in the K-12 system.

Tier 2 provides students with more intensive help if they are

experiencing learning challenges in their classes. A project team meets weekly to determine how best to help students who are referred or who independently seek help. Students are usually provided with individualized recommendations of strategies to practice with their teachers. For example, an instructor puts handouts on a CD and shows a struggling student how use a scanner and text reader to make reading the assignment easier.

Tier 3 provides low cost assessment and diagnosis for learning disabilities. In addition, students can receive technical support for assistive technology. The Assistive Technology Lending Bank, a library of software programs such as screen magnifiers and hardware such as ergonomic keyboards, allows students to try out technologies with no financial risk before a purchase is made. The Lending Bank is available to all Renton students. The 40-year-old student, for example, who hasn't been able to learn the multiplication tables may try out something as simple as a

calculator as a compensatory strategy or may check out a screen reader to see if having the numbers read aloud is a better support for his needs.

A Long Time Coming

The three-tiered service model took Renton Tech about five years and two generous grants from the federal Department of Education Office of Postsecondary Education to develop. But it took more than a decade for teachers in Washington to see progress in helping students with learning disabilities. Without documentation, students were unable to get accommodations within the Community and Technical College system, where most of Washington's ABE programs are housed. Even if students had documentation, ABE teachers had little or no knowledge of learning disabilities and minimal access to training or information to provide the accommodations or instructional approaches students needed.

This article traces the journey ABE teachers took, persistently calling upon the state and their institutional leaders to make changes that would benefit students with learning disabilities. No one who began this journey thought that problems would be solved overnight, or that institutional change would occur just because it is good for students. With each small advance, such as implementing a

simple screening process within the ABE department, a string of other needs or problems was discovered. The progress that has been made by Washington's Adult Basic Education LD services is a testament to the teachers who began this journey and continue to persevere to bring about change in the system.

Individuals Trained

In 1996, teachers in ABE programs across Washington started the first of many appeals to the state for help in dealing with students with learning disabilities. The state agency responsible for funding and oversight of adult basic education in Washington, the State Board for Community and Technical Colleges, listened and responded by launching a state-wide training initiative. From 1997 to 1999 the Office of Adult Literacy sponsored an intensive training open to all ABE programs, encompassing 34 community and technical colleges and 12 community-based organizations. The purpose of this three-year initiative was to improve instruction and services for students with learning disabilities. In the three-year project a total of 119 ABE teachers and 17 disabled student services staff participated in at least one of the 13-day training cycles conducted by Nanci Payne and Neil Sturomski. This was the first time any of the college staff had participated in training on learning disabilities. The impact of these trainings was evident in the increased number of accommodations requested for those taking the tests of General Educational Development (GED), from 79 in 1996 to more than 300 in 1999. Further, an awareness of the need for better instruction and more services for students for learning disabilities had been laid. But, once funding ended for the project, little changed at the colleges or in the ABE programs that had invested so much time and money. Teachers' increased knowledge and experience in helping students with LD also increased their
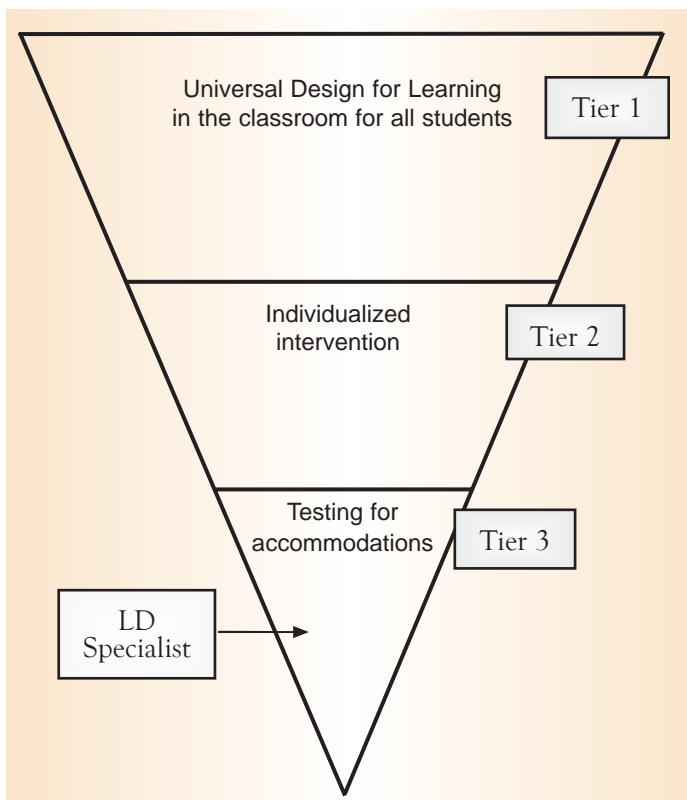
awareness that much more needed to be done. Although teachers had the power to change what happened in their classrooms, making systemic changes at their institutions seemed impossible.

In 1999 a small group of teachers in Pierce County, all of whom had been trained through the initiative, asked, and to their surprise, received funding from the Office of Adult Literacy for two individuals from Washington to go to California and become LD Specialists. This would qualify them to administer the diagnostic evaluations needed to determine learning disabilities. In California's community college system, LD Specialists administer cognitive and achievement tests, such as the WAIS III and Woodcock Johnson III, and work with qualified psychologists to determine whether a college-level student has a learning disability. Pierce County wanted the ability to provide evaluations, which normally cost between $1,200 and $1,500 per person, so that low-income ABE students could get accommodations for the GED exam.

Two years later, Pierce County had the first LD Specialists in Washington. Even without a reduction in their full-time teaching schedules and responsibilities at their community college, these individuals screened and tested students, advised their teachers, and trained individuals in the six other institutions in the county to conduct LD screening. During the first year the LD Specialists, working with a local psychologist, were able to get accommodations for 15 ABE students, which was 15 more than the previous year. The following year the Office of Adult Literacy provided a small amount of funding to enable the LD

Specialists to continue to provide testing for the region's institutions.

The initiative in Pierce County was so successful that in 2001 another small group of teachers and administrators, including the LD Specialists from Pierce County, were emboldened to made another proposal to the Office of

*Hello to all...
AT LAST!
a place where they know how to help me learn!*

*TO:
Friends and Family*

Adult Literacy. Would they fund a pilot program to develop and implement an intake, screening, and referral process in ABE programs in different regions of the state in order to identify and serve students with learning disabilities? The state agreed to fund a pilot for one year. The small group, representing three regions, chose a leader, agreed on operating procedures, and set an ambitious timeline to complete its task. The Learning Disabilities Quality Initiative (LDQI) was launched.

Institutional Change

Seven institutions were chosen to participate; each received $7,000 from the state. Tacoma Community House, a community based organization and ABE provider, was selected by the group to lead the pilot along with an advisory team made up of the teachers

and program administrators of the pilot institutions. Together they developed a simple five-step process that would be implemented in each pilot site: flagging, screening, interventions, LD assessment, and follow up. A point of contact (POC) was designated at each site and trained by Tacoma Community House to administer screening, provide interventions, and follow up with students and teachers. For the POC to carry out these activities, programs had to change how they did business. Time had to be set aside for the POC to work with students, intake procedures had to be changed to include screening, and teachers had to be trained to provide strategies. The POC had to learn about available resources in the community, such as

vision and hearing services, how to obtain school records, and how to request accommodations for the GED testing. When a student needed a full LD evaluation, there were no funds to pay and in many cases no testing services available to the student. POCs requested more training to keep up with the needs they were identifying.

Planners soon recognized that this was more than a one-year project, so they appealed to the Office of Adult Literacy to continue the LDQI. They received more support to expand to other regions and institutions. Over the next four years, the state funded the addition of seven more institutions to the pilot, Renton Technical College obtained grants from the federal

Department of Education, and as a result of the work at Renton, LDQI institutions embraced Universal Design for Learning principles in their trainings. UDL principles include the following: flexible goals, methods, materials, and assessments that accommodate learner differences; multiple approaches to meet needs of diverse learners; multiple means of

designed a certification process that mirrored California's model. In 2003-04, the first LD Specialist training was conducted utilizing trainers from California. Four individuals — all POCs from four institutions in the pilot program — completed the process a year and a half later. In 2007, all four of those trained continue to provide services to students in their

students with learning disabilities. The training and experience Renton Tech staff initially received through the LDQI project, including LD Specialist training, encouraged them to apply to the Department of Education with the ambitious goal of transforming their entire campus to an environment that benefits all students.

During the school year 2007-2008, the Office of Adult Literacy continues to support ABE programs through the LD Project. Teachers and Points of Contact are taught about learning disabilities, strategies, and UDL in order to expand services to students with learning difficulties. In collaboration with these activities, Renton Tech, along with partners at Bates Technical College and the IEL, Community Colleges of Spokane, is mentoring seven other institutions across the state in the best practices of the LD Project to reach both ABE and vocational and academic classrooms.

What is a learning-friendly environment for students with learning disabilities? The Washington State LD Project, through its passion, grassroots collaborations, and determined leaders, teachers and counselors, is figuring that out!

> *"The pieces of an LD service system were beginning to come together: better trained teachers utilizing Universal Design for Learning principles, a process for identifying students with learning disabilities and providing them with more assistance, and LD Specialists able to provide low cost evaluations."*

representation to give learners various ways of acquiring information and knowledge; multiple means of expression to provide learners alternatives for demonstrating what they know; and multiple means of engagement to tap into learners' interests, challenge them appropriately, and motivate them to learn. These are from CAST, Center for Applied Special Technology.

As the number of ABE students screened for LD grew from about 100 the first year to more than 600 by year five within the pilot programs, POCs were continually looking for resources and avenues for qualifying individuals for accommodations. Only one LD Specialist was left in the community and technical college system by 2003. The state had no mechanism to train and certify additional LD specialists. With leadership from Tacoma Community House, a group comprised of Washington's remaining LD Specialist, Student Services senior staff at the State Board for Community and Technical Colleges, and trainers from California's community college system

institutions. Eventually 11 LD Specialists were trained and certified to administer evaluations and qualify students for accommodations in conjunction with local psychologists.

Systemic Change

The pieces of an LD service system were beginning to come together: better trained teachers utilizing Universal Design for Learning principles, a process for identifying students with learning disabilities and providing them with more assistance, and LD Specialists able to provide low cost evaluations. These changes seem logical and simple 10 years later, but making the system respond to the needs of students with learning difficulties has not been easy and has required perseverance and sacrifice from those who believed they could make a difference for students.

Renton Technical College's wonderful array of services for students with learning disabilities has its roots in the teachers and their administrators who shared a vision of helping

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About the Author

Deborah Reck has been the Education Director at Tacoma Community House for the past 25 years. She started her education career teaching English as a foreign language in Afghanistan and Iran. Deborah is currently coordinating the LD Project in Washington State. ❖

Getting Started with Assistive Technology

by Heidi Silver-Pacuilla

*T**he driving idea behind assistive learning technologies is that they can provide critical supports that increase learners' learning independence and allow learners to access and master general, age-appropriate curricula. The promise of computer technologies to address the academic and productivity needs of people with learning disabilities (LD) has been greatly anticipated and studied for many years. Researchers and developers have worked to create assistive technologies (AT) that can alleviate learners' struggles with decoding, spelling, handwriting, planning and organization, and studying, and decrease their reliance on accommodations such as reading aloud or note taking by others for the learner with disabilities. The development of AT, coupled with the general explosion of consumer technologies, has resulted in many products that are reasonably priced or free; some assistive features have even made their way into mainstream technologies where they can assist many more learners. The days of students with LD having to travel to a separate lab to use expensive equipment are fading. Shared here are some of the most common categories of AT that support literacy and language development.*

Text to Speech

Text to Speech (TTS), a speech engine that can read digital text aloud (usually available in multiple voices and with controllable reading speeds or rates) is becoming a common feature of computer operating systems and some Web sites. It is available in downloadable programs or bundled in assistive reading software. TTS, paired with digital text highlighting each word as it is spoken, can create multisensory literacy strategies, such as repeated and choral reading. Simultaneous highlighting of the spoken text draws learners' attention and helps them stay in sync with the reader allowing them to focus on comprehension. Simultaneous presentation has been shown to improve word recognition and retention and is a valuable tool in teaching reading to youth and adults (Boone & Higgins, 2007; McKenna & Walpole, 2007; Edyburn, 2007; Anderson-Inman & Horney, 2007).

In the classroom, computer lab, and on learners' own computers, TTS can encourage more reading. Learners can utilize TTS to access motivating and content-specific texts on the Internet. By reading along with texts more challenging than they could decode on their own, learners can explore and develop the vocabulary and background knowledge that is important to academic development. Learners of English for speakers of other languages (ESOL) benefit from hearing a text read aloud, and can use the software to listen to text multiple times. Assistive reading software has on-screen tools such as annotation, highlighting, commenting features, and linked dictionaries that facilitate studying. And TTS enables writers to listen to their compositions read aloud as a proofreading process.

Animated digital storybooks on CD-ROM or online is another form of TTS. They can add excitement to a family literacy event, enabling parents and children to listen and interact with the animated literature and characters together, eliminating the need for the parents to be able to read the story aloud independently.

Speech Recognition

Speech recognition software can transcribe spoken language to digital text or take computer commands through speech. All speech recognition programs are now paired with high quality TTS engines that will read back what has been transcribed. Speech recognition has been available as commercial software for years and is increasingly being built into operating systems and other programs. The accuracy of these programs has increased and training requirements

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Tech Matrix

Find and compare a variety of commercial and free TTS, speech recognition, graphic organizer programs, writing programs, and e-resources at the www.techmatrix.org. The TechMatrix allows users to search by subject (reading, writing, mathematics, or AT), by learning support, or by features (such as text-to-speech and voice recognition). Product information such as grade-level appropriateness, compatible platforms, and price range is provided as well as links to the vendor Web sites. Supporting research (for K-12 learners) is also categorized and linked on the site.❖

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have dramatically decreased in the past few years. Improved, too, is the sensitivity and quality of reasonably-priced ($20 to $35) microphones, making it possible to use the software in classrooms and computer labs.

Speech recognition not only provides access to computer users who have physical disabilities, such as carpal tunnel or quadriplegia, but by creating a clean, organized document also allows struggling writers to address issues of fatigue, poor handwriting, spatial organization, or poor spelling. Speech recognition, moreover, is a powerful example of immediate constructive feedback, a hallmark of well-designed computer assisted learning. When learners use speech recognition, they dictate and watch their words transcribed on the screen: this provides awareness of articulation and speech patterns.

Speech recognition can be used as a language experience approach that puts the responsibility for transcription not on the tutor or teacher but on the learner to ensure the correct words are transcribed for later editing and revision. The use of the software also reinforces the vocabulary and use of writing conventions and punctuation by requiring that they be "commanded". For example, users have to tell the program "Indent that" or "Capitalize that" or make those edits to their document using the keyboard. Seeing and listening to the transcribed dictation on the screen without punctuation really shows learners the function of punctuation. "Why won't it stop [reading]?" one of my learners asked of a read-back of her writing that had no punctuation except commas. "What would tell it to stop?" I prompted, and she realized that she needed to go back and include

periods, exclamation points, and question marks.

Speech recognition can help motivate struggling writers and spellers by allowing them to circumvent the

"The development of AT, coupled with the general explosion of consumer technologies, has resulted in many products that are reasonably priced or free; some assistive features have even made their way into mainstream technologies where they can assist many more learners."

physical tedium of writing or anguish of spelling to get their ideas onto paper and reinforce literacy skills in the process. Research has shown the learning value of using speech recognition to compose as well as to proofread writing (Higgins & Raskind, 1995; Raskind & Higgins, 1999; Raskind & Higgins, 1995). Special programs can help struggling math learners dictate and organize mathematical expressions, and when paired with TTS, to decode those expressions.

Graphic Organizers

Graphic organizers provide visual ways to represent ideas via tools such as brainstorming webs or Venn diagrams. Computer-based graphic organizer programs can create these graphics on the screen to facilitate brainstorming, concept mapping, and outlining. Computer-based graphic organizers have word processing and TTS support, the ability to rearrange elements easily, and switch between outline and map view.

Computer-based graphic organizers can be used with whole class instruction to make visible the connections between big ideas in the content areas as well as to demonstrate writing and reading comprehension strategies. Learners find the programs valuable for annotations during reading or prewriting brainstorming. The ability of most of the software packages to switch between map or web and outline views supports learners' progress through the writing stages by preserving the webs made during brainstorming, switching easily from the webs to an outline, and linking seamlessly to a word processor to begin drafting the composition.

Visual Representations and Resources

Visual representations and resources help learners see relationships and sequences and make key concepts less abstract. In mathematics, teachers are realizing the value of virtual manipulatives and online, animated dictionaries. An animated illustration of the relationship between fractions, percentages, and the number line helps convey abstract concepts. See examples of virtual manipulatives on the National Library of Virtual Manipulatives at nlvm.usu.edu/en/nav/vlibrary.html, which has resources in English, Spanish, and French. Using online resources as class demonstrations can help introduce a lesson, and learners can be shown how to access the same manipulatives on their own for further exploration.

Online dictionaries, encyclopedias, and thesauruses not only bring TTS but supporting visuals

to reference materials, notoriously difficult print texts for struggling learners. Digital reference materials also provide the facility to instantly find the target word. Online dictionaries offer spoken pronunciations and linked definitions so learners can pursue related ideas and words for greater word study. Online thesauruses can help illustrate word study concepts and relationships between meanings. Learners motivated to improve their vocabulary can sign up for a word of the day e-mails. Adult learners should be comfortable using the vast array of free information sources as learning supports to address vocabulary and background knowledge gaps, to provide translations, and pursue their interests. See a collection of digital reference sites at www.literacymatters.org/content/resear ch/find.htm#research.

Videos can build background knowledge, introduce vocabulary, and reinforce language skills in ways that print and teacher talk alone cannot and greatly enhance learner's understanding of new concepts. Use videos as introductions to whole class presentations, and teach learners how to access the videos themselves to watch on their own. Viewing videos with the captions visible adds print to the experience and reinforces literacy. Thousands of free, captioned videos are available at the Described and Captioned Media Program, www.dcmp.org. Teacher Tube (www.teachertube.com) is a growing site of teacher-submitted videos on topics from algebra function raps to classroom management.

Mobile Applications

Consumer electronics such as cellular phones, personal digital assistants (PDAs) such as Palms, Blackberries, or Treos, and hand-held MP3 players are also beginning to have the capacity to act as personal AT. If learners already have cell phones or iPods, teachers can help them use these devices strategically as learning supports. Cellular phones can be used as calculators; to set a visual or auditory reminder to take a medication or keep an appointment; to record audio reminders, vocabulary words, or instructions; and to provide spelling support with a mobile dictionary or the predictive word processing of text messaging. A free download from Google can turn a mobile phone into a global positioning system (GPS) tool helping users navigate neighborhoods, build confidence, and enhance independence (www.google.com/gmm). iPods are being used across the globe as more than music players. Use an iPod to create opportunities for learners to podcast and direct their own radio shows, interview family and community members, learn phonics or math facts with downloadable games, and to record assignments. Thousands of free downloadable audio podcasts on all topics imaginable and in many languages are available at the iTunes stores. iPods also transform into AT through a built-in compatibility with audio (recorded) books, study guides, and GPS maps. These materials, free or low cost, are available for MP3 players at the Apple Store (www.apple.com/itunes/store/audiobo oks.html by signing up for a free account to access the directory) or Audible.com (www.audible.com). Video iPods or similar devices can allow learners to view educational videos and build background knowledge and vocabulary. Find how-

> "*A key ingredient to successful use of AT for learning is the learner's ability to use the technology effectively.*"

to information on consumer electronics in the user manual or look up the product online where manuals are often available to download. CNET (www.cnet.com) provides detailed information as well as Web site links for many popular products.

Teach the Tools

A key ingredient to successful use of AT for learning is the learner's ability to use the technology effectively. The use of the tool must be taught alongside the content. This is critical for learners who will be using AT on high-stakes assessments such as the tests of General Educational Development (GED), Test of English as a Foreign Language (TOFEL), or community college placement tests or requesting the tool as an accommodation in their workplace. Learners must be comfortable with the technology so that it is a support, not a distraction. Even for mainstream applications that are being used as AT, explicit instruction in the use of the tool is often overlooked. The Internet is a prime example of a mainstream application that could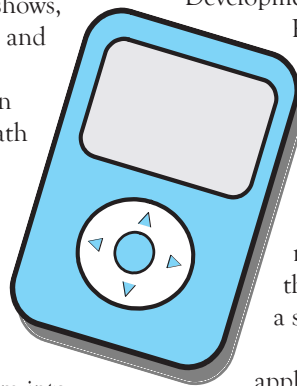 benefit from explicit instruction. Teach learners how to use search engines: how to read the search results and what the URL extensions signify (for example, .gov is probably less commercially biased than .com). Teach navigation on the

Web explicitly so learners can manage multiple windows, bookmark favorite sites, or sign up for RSS feeds that aggregate news of interest to them without distracting ads and pop-ups. Show learners how to use mapping software, online calendars and datebooks, online Yellow Pages, e-mail programs, and blogs. Stress the importance of improving keyboarding. Many free or low cost typing programs are available for learners can use on their own time. Becoming more proficient on computers is critical to academic and increasingly, workplace success. Empowering learners with knowledge, skills, and strategies will improve their productivity and independence.

Most people don't know how many ways they can configure a computer to have a more comfortable and effective learning experience. Simply enlarging the text size may provide a significant boost for someone with low vision or a learner who is discouraged or overwhelmed by a large amount of text on a page. Changing the background colors or the color scheme, adjusting the sensitivity of the mouse and click functions, increasing the size of the icons, or changing the tone or volume of audio feedback: all of these are simple customizations that may make working on a computer more enjoyable and efficient for a learner. Providing customized logins on public computers (such as in a lab) allows users to save their preferences. Teach these customizations to learners to promote independence; they may be able to share their knowledge with their family and friends. Find more customizing tips (under "Accessibility Tutorials") at www.microsoft.com/enable/.

Finding a collaborating organization in the community may be the first step to becoming informed. Vocational rehabilitation offices work under the mandate to assist adults with disabilities find and keep employment, and AT is often part of the solution. Local community colleges have Offices of Disabled Student Services (or an equivalent name) where enrolled students can access technology and tutoring services. Public libraries also serve the community, providing technology and referral services. Making personal connections between staff at any or all of these partner organizations may bring expertise that adult basic education staff may not have. Above all, AT is about helping people achieve and stretch their goals. Adult learners with disabilities have the same goals as other learners: to improve their literacy and language skills, improve their employability and work skills, enrich their family lives, and contribute to their community. AT can help.

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Legally Speaking

Under the Americans with Disabilities Act (1990) and the Vocational Rehabilitation Act, Section 504 (1973), federally funded educational agencies are mandated to provide non-discriminatory service to adults with disabilities. This means that agencies must consider how they are recruiting, welcoming, orienting, instructing, assessing, and referring adults with disabilities. Questions to consider include:

- Are your information materials available in multiple formats such as large print, audio recordings, or Braille (just as you probably have versions in the native languages you serve)?
- What process is in place for learners to identify their needs in a confidential manner? How is it communicated to learners?
- How are teachers informed about best practices for instructing students with disabilities? Where can they find more information?
- What processes are in place for testing accommodations? What arrangements have been made for students with motor, sensory, and cognitive disabilities? How have testers been informed? How are the procedures communicated to learners?

Additionally, consumers (i.e. learners) with documented disabilities have the right to request reasonable accommodations which must be provided in a timely manner. These should be requested in advance of needing them. Accommodations are to be negotiated between the student and the provider. Make it a friendly process. The student/consumer doesn't have the final say and neither does the service provider. Most important is to make an effort to meet the stated needs as well as possible. Questions to consider include:

- What is your policy on advance time and how is it communicated to the learners? Make sure that the time limits are clear and realistic for both student and provider.
- What is your menu of accommodations that you can provide within that time frame?
- How does your staff find information and accommodations beyond your usual scope in a timely manner?

For more information about your program's responsibilities and learners' rights, see www.ed.gov/about/offices/list/ovae/pi/AdultEd/dislearning.html❖

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Resources

For more about the research and policy behind the learning benefits of these tools, go to in "Assistive technology and adult literacy: Access and benefits," a chapter in NCSALL's *Review of Adult Learning and Literacy*, available at www.ncsall.net/fileadmin/resources/ann_rev/silver-pacuilla-04.pdf. ❖

WORLD EDUCATION

Addressing Potential Impediments to Learning with ESOL Students

Before assuming that an adult ESOL learner has a learning disability, consider phonological processing skills, cultural differences, and more

by Robin Lovrien Schwarz

Adult non-native speakers of English who are not making the progress expected in classes of English for speakers of other languages (ESOL) may have learning disabilities (LD). Other issues, however, may be impeding their ability to learn. Bilingual educators have done much work in this area, developing models of assessment for culturally and linguistically different learners who are suspected of having LD or other special learning needs. These models examine every possible reason for learning difficulties (Artiles & Ortiz, 2002; Ortiz, 1990). I have adapted these models of evaluation to adult ESOL, distilling the causes of difficulty into six categories. In this article, I share these categories and provide suggestions on how to address them.

Weaknesses in Phonological Processing Skills

Some adult ESOL learners may struggle because of weaknesses in the phonological processing skills that underlie literacy and support first or additional language acquisition (Ganschow et al., 1998). The first phonological processing skill is phonological awareness, a phonological skill acquired mostly before encountering text. This is the ability to isolate and manipulate consciously the sounds of language, including chunks of sound (words and syllables), rhythm, stress, and intonation, all of which are unique to each language. Phonological awareness is essential to the development of reading and spelling in English (Shaywitz, 2003) and in second language acquisition (Sparks et al., 2006). It continues to develop as literacy develops and learners become more aware of the sound chunks of the language as they are represented in print (Adrian et al., 1995). Phonological awareness can be evaluated and strengthened by using a variety of word game activities. For more on phonological awareness, related subskills, evaluation, and strengthening techniques, see the box on page 22.

Phonological memory is the second phonological processing skill. Phonological memory enables us to perceive and briefly retain never-before-heard speech sounds long enough for the brain to process them either for repetition or for long-term memory (Baddeley et al., 1998). This skill

underlies listening and speaking skills (Dufva & Voeten, 1999; Papagno & Vallar, 1995; Papagno et al., 1991). Phonological memory is needed for acquisition not only of single words but also strings of words such as grammatical constructions and idioms (Ellis, 1996; Williams & Lovatt, 2003). For phonological memory to retain and record language accurately, sounds and words must be heard accurately. But since the adult brain perceives and processes unfamiliar speech sounds less accurately than children's brains do (Kuhl, 2004), the adult learner's phonological memory may not be able to record words and sounds accurately, limiting the development of oral skills. In a pilot study conducted in Texas evaluating the phonological skills of 30 learners from 13 language backgrounds with education ranging from none to post-doctorate, only six could repeat sentences of five or more words completely accurately (Schwarz, 2005). This finding is consistent with the acoustical abilities of adult brains and gives at least a hint of how inaccurate the receptive language of adult ESOL learners can be.

Phonological memory can be evaluated simply by having learners repeat increasingly longer words and then sentences that are totally unfamiliar to them. Have them try to repeat sentences from ESOL materials they are using but have not yet used for oral drills. This way the content and grammar should be within their reach, and it is easy to see how well they are managing the materials. Phonological memory can be strengthened by gradually increasing the length of words and sentences, but other kinds of training in perceiving sounds and words will help even more. This is covered in the next section.

Unmet Needs of Adult Language Learners

Adult language learners need explicit instruction in accurately perceiving the sounds of the target language (Ganshow et al., 1995), especially those that are similar to sounds in their own language and therefore are harder to discriminate.

> *"Some adult ESOL learners may struggle because of weakness in the phonological processing skills that underlie literacy and support first or additional language acquisition."*

Minimal pair training, which involves distinguishing between two different words or syllables that vary in one sound segment only, such as "bat" versus "vat", helps adult learners hear English more accurately. Similarly, practicing hearing individual words in the speech stream helps adult language learners' ability to distinguish sounds. For example, native English speakers say the sentence "He looked at her" as "He look /ta/ /der/." Showing this to learners helps them hear and know how to say the past tense, since it is impossible to say fluently, "He looked at her," by pronouncing each word separately.

Adult learners also need and want to understand something about how language works (Marshall & Snow, 2000). Placing lessons in a linguistic framework, even a very simplistic one, is often appreciated.

A third language acquisition factor to consider is the normal gap between conversational language, which develops in just a couple of years, and academic or non-contextualized language proficiency, which develops very slowly. Cummins (1984) noted

that this gap explained the lower reading achievement of otherwise orally proficient K-12 readers, and Collier (1992) has shown repeatedly that younger and adolescent English language learners require up to 10 years to master academic or non-contextualized language at a level that permits them to manage text meant for native English speakers. Misunderstanding the implications of this gap is considered by some to be the chief contributor to disproportionate referral of English language learners to special education in K-12 (Artiles & Ortiz, 2002). The problems this gap causes for adults can be seen when learners succeed in oral proficiency tests, advance into pre-GED classes, and then flounder as they encounter texts meant for native English speakers.

Learners' reading skills can be measured with reading tests designed for native speakers. The score will show the level of native-language materials these learners might be expected to manage. To help these learners raise their reading skills, instruction in higher level reading skills as well as heavy vocabulary study may be useful.

Unacknowledged Educational Backgrounds

Learners' educational backgrounds can play a role in learning in a variety of ways. Though most programs inquire about how many years of school learners have completed, the answers can be misleading. Learners may exaggerate or misreport actual education so as not to look uneducated or because they cannot accurately calculate time spent in educational endeavors in refugee camps (Eggers, 2006). Also, educational systems in other countries differ in length of day

Phonological Awareness

Adult ESOL learners may have weak phonological awareness for several reasons. Basic phonological awareness skills generally transfer readily (Durgunoglu, 2002; Lopez & Greenfield, 2004) so a person literate in one language will transfer much phonological awareness to the learning of a new language. However, transfer happens only to the level that phonological awareness has been developed in the first language (Cummins, 1984; Geva, 2000; Artiles & Ortiz, 2002). Learners with limited literacy in another language will likely have only partially developed phonological awareness. Those with no education at all can be expected to have phonological awareness at the preliterate level (Dellatolas et al., 2003). One study of preliterate adult learners (those whose language has a literacy, but they are not yet literate) who were given explicit training in phonological awareness found that they were able to become literate more easily than those who were not trained (Royer et al., 2004). This finding is similar to many studies of children where similar training improved reading outcomes.

Another factor may be problems with **phonemic awareness**, a sub-skill of phonological awareness that involves recognizing that there are single units of sound within words in alphabetic languages. Critical to reading and spelling in English and other alphabetic languages, it grows as learners learn how to read and write, but is dependent on having fundamental phonological awareness strongly in place. In orthographically regular languages such as Italian or Spanish, children's phonological awareness can be fully developed by about second grade, which is when full literacy is achieved in these languages; however, since English is orthographically and phonologically complex, phonological awareness continues to develop as education continues. The implication is that ESOL learners, even literate ones, require more explicit phonological awareness training in English than just what is needed to decode.

Many adult ESOL learners do not yet have phonemic awareness because they are not literate or because they speak languages such as Japanese or Chinese, which do not use individual phonemes.[1] Asking learners to **identify initial phonemes** is a good way to start to find out where these skills are. (Before asking learners to assign letters to phonemes, they must have mastery of the letters of the alphabet and the sounds the letters make. Learners can be asked if sounds are similar or different, however, without having to name letters.) Asking about final sounds—be sure sounds are clear consonants and not blends or vowels—and then medial consonant sounds will give more information about how well learners understand and hear phonemes. A higher level skill is **phoneme counting** ("How many sounds are there in 'rent'?"), which is critical for English reading and writing. This can be done if the learner understands the concept of phonemes. Learners who have difficulty with phoneme counting should practice this skill with manipulatives and other tactile-kinesthetic activities until it is mastered. The final skill in phonemic awareness is **deletion**. The learner listens to and repeats a word, then is asked to say the word with a piece or sound missing. For example, ask the learner to say "football" and then to say "football" without "foot." The learner should respond: "ball". Ask the learner to say "cold," then to say "cold" without /c/. The learner should respond: "old". This is high-level phoneme manipulation, a skill highly correlated with good reading in English.

Perception of rhyme is another important phonological awareness skill. Asking learners to decide whether pairs of words they hear rhyme or not provides good information about this skill. Having learners pair pictures of words that rhyme (be sure they know words for the pictures) is a useful way to practice this skill. However, many ESOL learners' first languages do not have or use rhyme in the way English does, and the concept of rhyme is very difficult to convey. Addressing rhyme concepts that are weak can help learners hear and understand similarities in words, a skill that helps with reading and spelling.

For activities to build phonological processing skills, see:
www.bdainternationalconference.org/2001/presentations/thu_p1_b_2.htm

For minimal pair activities, see:
iteslj.org/Lessons/Fryer-MinimalPairs.html

For other ideas, see:

Nilsen, D. & Nilsen, A. (2002) *Pronunciation Contrasts in English*. Long Grove, IL: Waveland Press.

Edelen-Smith, P. (1997). "How now brown cow: Phoneme awareness activities for collaborative classrooms." *Intervention in School and Clinic* 33(2): 103-111.

Tolman, C. (2005). "Working smarter, not harder: What teachers of reading need to know and be able to teach." *Perspectives* 31(4): 15-23.

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[1]Chinese learners who have been taught Pinyin, a phonemic version of Chinese, are the exception to this.

and school year, emphasis on content, teaching methods, and expectations of students. Learners may have information gaps due to differences in education systems, interrupted learning, or lack of access to books. When assumptions are made about what learners know or can do, materials and tasks may be beyond them. Yet, because of cultural respect for teachers, adult learners may say nothing about their discomfort or confusion.

Another way prior education affects learning relates to what not having had access to formal education really means. For example, interpreting photos and drawings is a learned skill, as is holding pencils and books correctly. Concepts such as homework may be new to learners who did not attend school prior to coming to the United States. Little information is currently available about how much time non-literate adults typically need to gain literacy in a language that is not their first or how best to teach them. What is known, however, is that it will generally take much longer for such persons to read or write than for a literate learner to learn to read and write in English: the non-literate must first acquire all the pre-literacy skills needed to move into literacy.

Many ESOL learners, on the other hand, are highly educated. Balancing their needs with those of learners with limited education is a challenge. Sandra Fradd, who has written much about avoiding labeling ESOL learners in K-12 as LD, recommends that schools find out exactly what learners know and start instruction there (1994). Asking a few more questions at intake, learning more about the education systems of the countries learners come from, having a range of

tests available to estimate learner knowledge, and best, permitting adult learners to make more decisions about

> "*Screening all learners for vision, hearing, and visual stress issues can identify those who have uncorrected problems.*"

what and how they will learn can go a long way towards preventing learners from being overwhelmed or under-challenged by ESOL classes.

Cultural Differences

The cultural aspect of learning and teaching (Irving, 1984) should not be ignored. The mismatch between learner and teacher expectations is often a major barrier to learner engagement and contributes to decisions to drop out. Everything we do as teachers and learners is colored by our own cultures (Gutierrez & Rogoff, 2003). As mentioned earlier, many adult ESOL learners come from school cultures that are quite formal and require rote memorization. Teachers in the United States tend to be fairly informal and use an analytical, applied-learning approach. Behaviors such as lateness, reluctance to join in multi-sensory activities or to ask or answer questions, ignoring writing structures, not doing homework,

"helping" each other on tests, and even text comprehension difficulties may occur for cultural reasons. When learners' expectations of teachers, classes, materials, and teaching methods are continually in conflict with the reality of the classroom, some will eventually drop out from discouragement.

While it is not possible to know all the ins and outs of each learner's culture, it is possible to recognize that issues in the classroom may have a cultural basis. Teachers can read up on or ask their students about the practices in the schools they attended in their home countries. Teachers can also explain constantly how their own practices and approaches are culturally rooted and consider that culture may be at the root of puzzling learner behaviors or performance.

Health, Physical Functioning, and Mental Health Issues

Adult learners may have reduced vision and hearing, but because of cultural barriers, they may not identify themselves as having some condition that requires accommodation. They may not recognize the impact that their medication, illness, vision problems, or hearing is having on their efforts to learn. (See "Taking a closer look at struggling ESOL learners" at www.ncsall.net/index.php?id=994 for more on this topic.)

An Ethiopian man who had been trying for more than five years to learn to read could not remember the alphabet letters from one lesson to the next. When asked about what he saw when he looked at the paper, he moved his hands back and forth indicating that everything on the page was moving, a symptom not of dyslexia, as his tutors had concluded, but of visual stress syndrome. Visual stress syndrome involves problems with bright light and black print on white pages that cause words to move or disappear and readers to have headaches and other physical symptoms (see www.irlen.com for more information). With a goldenrod-colored overlay on his book, the letters no longer moved. He read them all correctly and continued to make steady progress in reading thereafter.

Screening all learners for vision, hearing, and visual stress issues can identify those who have uncorrected problems. Learners can then be referred to specialists if necessary or accommodated for milder problems immediately.

All adult immigrants and refugees can be assumed to be suffering from culture shock (Irivng, 1984; Yost & Lucas, 2002), and many have experienced trauma in their countries or the camps (Eggers, 2006). Dealing with the emotional issues these experiences have engendered can be challenging. Some learners may want to work through their trauma as they learn English; others will prefer to avoid the topic. Insofar as possible, following learners' leads on when and how much they want to deal with mental health issues in the education setting seems respectful of them and their histories.

Offering help or attempting to intervene in ways that are culturally insensitive can also be a problem. In some cultures, talk therapy is unknown and talking about the past is unconstructive. Just as with other cultural issues, learning more about

how mental health issues are regarded by the cultures of your learners is one way to address this difficult issue (Butler, 1994).

Inappropriate Pedagogy

Generally speaking, the primary cause of pedagogically-induced learning problems is ignoring the issues already discussed in this article. However, other factors contribute to learner frustration and slow progress. If learners are not able to master concepts and content, they then lack a foundation on which to build. This is a complex issue: part of a learner's failure to master material may be due to educational gaps, cultural differences, or normal comprehension lags. But, learners may just need more time with materials. Therefore, teach to mastery. Learners need and appreciate review. Over-learning is essential for automaticity in skill-based learning. Using a wide variety of methods and material for review prevents boredom for you and learners.

Have specific, easy-to-understand, attainable, quantifiable goals that are meaningful for each learner. Adult learners can set their own goals. Teachers can help them break those goals into smaller steps and plain language, and record progress towards those goals. Seeing progress is a powerful motivator, and learners can see for themselves whether they have mastered something or not.

Have high expectations of learners and keep learning relevant and challenging, but not overwhelming. Let learners indicate what they need and want to learn, then help them design ways to learn it.

Provide multiple ways of learning. Move from whole group to small group to individual learning, giving learners many opportunities to listen, talk, and be involved. This allows for a wide variety of learning styles, skill levels, and interests.

In Conclusion

Before attributing ESOL learners' failure to progress to learning disabilities, review the issues discussed here. Assess and strengthen learners' phonological skills. Learn about, acknowledge, and address their educational, cultural, and health situations as they relate to learning. Provide well-sequenced instruction with plenty of review so learners master the material. LD may still play a role with some learners, but for many learners, the impediments to learning will have been removed.

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WORLD EDUCATION

Resources

For more information on teaching beginning-level ESOL or on ESOL learners who are progressing slowly, a good place to start is:
Learning Disabilities and Adult English Language Learners: Resource Collection
www.cal.org/caela/esl_resources/collections/ld.html

Within that collection, make sure to review these resources:

ESL Instruction and Adults with Learning Disabilities
www.cal.org/caela/esl_resources/digests/LD2.html

Trauma and the Adult English Language Learner
www.cal.org/caela/esl_resources/digests/trauma2.html

How Should Adult ESL Reading Instruction Differ from ABE Reading Instruction? www.cal.org/caela/esl_resources/briefs/readingdif.html

Teaching Low Level Adult ESL Learners
www.cal.org/cae la/esl_resources/digests/HOLT.html

What Non Readers or Beginning Readers Need to Know
www.springinstitute.org/Files/whatnonreaders2.pdf

For activities to build phonological processing skills, see:
www.bdainternationalconference.org/2001/presentations/thu_p1_b_2.htm

For minimal pair activities, see:
iteslj.org/Lessons/Fryer-MinimalPairs.html❖

Leave No Stone Unturned

When ESOL learners were struggling, this progam took action, again and again

by Alice-Ann Menjivar

*I*n 2004, administrators at the Carlos Rosario International Public Charter School, Washington, DC, noticed that teachers in the lower level classes of English for speakers of other languages (ESOL) were retaining a number of students in the entry-level classes more than twice. Those teaching higher level ESOL classes were complaining that although the oral proficiency of their students was as expected, a growing number of students had lower literacy skills than that to which they were accustomed. Our program is an adult basic education (ABE) program that provides classes in ESOL, preparation for the tests of General Educational Development (GED), citizenship, and vocational training. We started to gather data, getting input from teachers and outside experts, to decide what programmatic and instructional changes would benefit our beginning-level ESOL learners.

Looking at the Data

The Carlos Rosario School serves approximately 1,500 students a year, 70 percent of whom are Hispanic. A significant number of the other 30 percent are Africans, mostly from Ethiopia, and Asians, mostly from China; less than one percent are native speakers of English. Our mission is to serve immigrant populations, and almost half of the 1,500 students attend our lowest ESOL levels, which are now called Orientation A, Orientation B, and Levels 1 and 2. In our day program, these classes meet daily for three hours a day; in our evening program they meet four times a week for three hours a night. Semesters last about 19 weeks.

A first step in exploring what was happening with our beginning learners was to find out how many were repeating the same level more than twice. While the number was small (approximately 30 out of the 700 beginning ESOL students), we felt it was large enough to merit attention. Many of the 30 learners were from the Central American countries of El Salvador, Guatemala, and Nicaragua, 40 years of age or older, and had had little or no formal education in their home countries. We suspected that issues related to their limited formal education and mature ages were interfering with their learning.

Programmatic Changes

With this initial information, we decided to divide our lowest ESOL level (called, at the time, Orientation) into two different classes. School administration met with the Orientation and Level 1 teachers to discuss what student characteristics would best be served in the newly-divided levels, Orientation A and Orientation B. With this input, we decided that Orientation A would consist of students who were truly illiterate in their native language,

> *"In 2004, administrators … noticed that teachers in the lower level classes of English for speakers of other languages (ESOL) were retaining a number of students in the entry-level classes more than twice."*

though they might speak some English. Orientation B would be for students who were literate in their native language, but were new arrivals with or without English language skills at all. Orientation B would also serve those students who had been promoted from Orientation A but still needed additional basic English literacy skills. We staffed them with teachers and teacher's aides who are both bilingual in Spanish and English and trained as bilingual teachers so that the majority of the students and teachers could communicate easily with each other. (This year we were able to add an Amharic speaking bilingual teacher's aide.) We revised the curriculum. In Orientation A, the students would learn basic literacy skills such as phonics and letter formation along with some basic survival English

vocabulary. In Orientation B, the students would continue with phonics, learn more survival English, and begin to write sentences and fill out forms.

After a year of using this model with approximately 30 Orientation A students and 60 Orientation B students, the teachers were very happy with the progress of their students. The students reported greater confidence and were better prepared to enter Level 1. Teachers of Level 1 were recommending fewer students for transfer back to Orientation. However, the teachers of the students in Orientation A, the literacy class, were not seeing as much progress in their students as they wanted. Of the approximately 30 students being served, sometimes half of the class was retained and a few of those students were retained twice.

In addition, teachers in some of the higher ESOL levels expressed concern that they were not able to adequately cover the large number of objectives in the curriculum given the time allotted. They were worried that their students would falter in subsequent levels. Carlos Rosarios' curriculum was created by our faculty based on students' expressed needs as well as the recommendations from the Department of Labor's Secretary's Commission on Achieving Necessary Skills (SCANS) and the National Institute for Literacy's Equipped for the Future (EFF) project, and contained at the time life skills and grammar. Therefore, in the spring, 2005, administration met several times with groups of a cross-section of teachers from different levels to discuss ways that the curriculum could be revised to allow more time for interactive instruction and review.

After several months of work, we revised the curriculum, dividing ESOL Levels 1 and 2 into two semesters each. This gives the teachers time to incorporate more interactive teaching strategies in their classrooms. Some teachers have begun experimenting with project-based learning, debates, and journaling. Our curriculum has since been reviewed by curriculum experts at Georgetown University, who found that it meets every guideline set forth in TESOL's *Standards for Adult Education ESL Programs* (2002).

> "*The diagnostic tools, while designed for Spanish speakers, were not appropriate for those with little to no formal schooling.*"

Revising the curriculum and lengthening the time allocated for certain levels of ESOL were important steps. They did not, however, provide the individualized help that some of our students seem to require.

Focused Support

In the fall, 2005, we initiated a tutoring program — with paid tutors — to which teachers could recommend students for pull-out or in-class tutoring sessions. The teachers gave specific suggestions to the tutors about what to work on and how to help each student. The tutors, teachers, and students expressed much appreciation for this program. As more students were referred for tutoring, and showed evidence of the need for many different skills, the tutors needed even more training. In the fall, 2006, we began to hold trainings specifically for the tutors. These were conducted by an assistant principal who is a bilingual certified school psychologist with a background in bilingual and special education in the K-12 system, and by a consultant in the field of adult ESOL education and learning disabilities.

As we slowly implemented the newly revised curriculum, integrating the divided curricula of the lower ESOL levels first, we initiated classes for each level that would especially target those learners who had repeated a level two or more times. In these classes, the teachers reviewed the material several times, utilizing different modalities and learning styles by integrating the use of pictures, music, and tactile activities. While this resulted in some progress for some of the students, the administration and faculty determined that teachers needed additional training on how to build phonics skills and how to incorporate more student-centered teaching. These professional development activities would begin the following school year, in the fall, 2006. First, we wanted to explore one more possible area of support: screening and testing for learning disabilities.

Are These Students Learning Disabled?

In the spring, 2006, we began exploring whether or not some of our students were learning disabled. Looking for a screening tool and more information on learning disabilities in adults, our assistant principal attended a training on *PowerPath® to Education and Employment* (Weisel, 2006), a screening device developed to identify adults with specific educational needs and to provide educators with recommendations to address those challenges. Using their tool as a model, the assistant principal and six tutors did an initial screening of students who had repeated a level more than twice and identified 22 students with severe literacy deficiencies and a lack of academic background. We felt, however, that they needed additional outside diagnostic testing in order to determine the presence of LD.

We sought a certified clinician who was familiar with the linguistic

and cultural background of the students, was bilingual in Spanish and English, and who used instruments that were developed or adapted for a Spanish speaking population. We selected and referred the identified students for a comprehensive psycho-educational diagnostic evaluation, paid for by the school.

The psychologist completed the evaluations and submitted her reports to the school. After the testing was complete, our vice-principal reviewed the reports and invited the students' teachers and other administrators to meet with the psychologist. The diagnostic tools, while designed for Spanish speakers, were not appropriate for those with little to no formal schooling. In every case, the psychologist stated that it would be almost impossible to diagnose the students as learning disabled due to their limited formal education in their home countries, their limited exposure to the world (for example, being shown a picture of a tuba and not being able to give the name of that instrument even in their native language), and their older ages. However, the psychologist gave us several suggestions which confirmed what we were already doing, such as working with the students in their native languages, providing one-to-one tutorial services, and dividing them into even smaller groups to deal specifically with their literacy needs.

After two years and several programmatic changes — dividing the Orientation classes into A and B and placing bilingual teachers in those classes, dividing ESOL levels 1 and 2 to be taught in two semesters instead of one, developing a tutoring program

and special classes, and testing students for learning disabilities — we were still struggling to serve these students. Our next step was additional professional development on instructional strategies on how to teach students with low literacy and limited formal education.

Professional Development

In November, 2006, a team of administrators and Orientation-level teachers attended the Low Educated Second Language and Literacy Acquisition for Adults Conference in Richmond, Virginia. In addition to networking with other teachers from

> "*After two years and several programmatic changes … we were still struggling to serve these students. Our next step was additional professional development on instructional strategies on how to teach students with low literacy and limited formal education.*"

different programs, the team explored topics such as whether it is okay to allow beginning students to use their native language selectively in the classroom, narrowing teaching goals and focusing on what the students will be able to do at the end of the day or the end of the week, developing students' ability to reflect on what they have learned, and using stories that are directly connected to students' lives to

build vocabulary.

Around the same time, we paired with outside experts to facilitate study circles on the topics of student goal setting, interactive teaching strategies, and using research-based strategies to teach reading. Study circles bring together colleagues — in our case, teachers who volunteered to participate — who read extensively on a topic and discuss it. The study circles ran the entire 10-month school year and seemed to be an engaging way to develop teacher skills and encourage true change in teaching. The goal-setting study circle participants conducted mini action research projects in which they evaluated such

questions as: how the goal-setting process affects students, how to make the integration of student goals into lesson planning more transparent to the students, and how that transparency affects student motivation as evidenced in attendance. This particular group of teachers originally only had one true supporter of the goal-setting process, but by the end of the school year, all five teachers in the study circle were convinced that students truly valued the goal-setting process.

Lastly, we began on-going and intensive workshops led by an expert in the field of adult ESOL education and learning disabilities. During spring, 2007, she conducted several sessions about what students with limited formal education bring to the classroom,

> "*…by the end of the school year, all five teachers in the study circle were convinced that students truly valued the goal-setting process.*"

Incorporating Multi-sensory Activities
by Sheryl Sherwin

As in most classes of English for speakers of other languages (ESOL), my students demonstrate a wide range of skills and abilities. And as we all know, some pick up the language quickly; others take more time. So much seems to depend on the quality and quantity of their prior education, world experience, and awareness of the grammar and syntax of their native language. At Carlos Rosario International Charter School, we have made an effort to see if some are struggling with learning disabilities (LD), but have found that LD is very difficult to diagnose in second language learners. Instead, we are focusing on the fact that different students have different learning styles. I teach high intermediate students, most of whom are women in their 20s and 30s. About 75 percent are Latina; the other students come from African countries and China. Most have had some high school level classes. A few have completed some college courses.

I participated in a workshop on how to make lessons more multi-sensory by using activities involving one or more of four modalities: visual, auditory, kinesthetic (large muscles), and tactile (fingers). The strategies I learned are simple, do not take a lot of additional resources, and keep my classes fresh. For example, after creating a grammar worksheet in a Word document, I went to Google Images and found a cute picture to paste at the bottom of the page. Then I copied the worksheet on colored paper. Just adding color to the lesson seems to make the activities more appealing. In addition, I have become a fan of colored highlighters. I have a big basket filled with highlighters of various colors in my room, and we pull them out for many activities now. When we were studying how to interpret a pay stub, we divided it into four categories of information: employee information, salary information, tax deductions, and benefits. We highlighted each category in a different color. It was a more stimulating way to identify and remember the information than just reading and answering questions.

Now when I am preparing my daily lessons I make sure to include at least one activity that requires the students to get up and move around. Here is an activity I prepared regarding participial adjectives after introducing the initial concept and having the students complete a few standard worksheets.

Objective:
Students will be able to identify which form of a participial adjective is appropriate within the context of a sentence.

Steps:
1. Write sentences on strips of paper with the base of the participial adjectives in the sentences, but without the -ing or -ed ending. For example: We saw a very interest_____movie last night.
2. On small index cards write -ed or -ing. Make sure you have enough of these cards with the appropriate endings to match the number of sentences that you have.
3. Pass out the sentences to half the class.
4. Pass out the index cards to the other half.
5. Ask the students with sentences to find a student with the correct ending. If everyone finds a correct match there should be no one left without a match (addresses kinesthetic, visual, and auditory modalities).
6. Ask the partners to then go to the board and write their complete sentence (addresses kinesthetic, tactile, and visual modalities).
7. When all the sentences are written on the board, ask each student to read their sentence out loud to the class (addresses auditory and visual modalities).

Another activity involves handing out individual words printed on colored index cards that together make a sentence. Ask the students to put the cards in order and stand to present the sentence. Each student gets all the cards for a sentence, or you can give each student one word in a sentence and have the students work together to figure out the sentence and then stand to display it. To inject a little competition, put the students into teams. The team wins that completes its sentence or all the team members' sentences first.

These are not revolutionary ideas, but they helped stimulate my thinking and reminded me of how important it is to present multi-sensory lessons and how easily it can be done. Using these ideas has been more interesting for the students and more interesting for me, too! ❖

the need to build student phonological awareness through minimal pair work and other strategies, using more multi-sensory instruction, and evaluating case studies of student work to see where more support could be given to struggling learners.

Outcomes

The most significant outcome so far, after three years of programmatic changes, focused support, and targeted professional development, has been the teachers' heightened awareness of and their sense of responsibility for their learners' progress. Teachers have shifted from simply wanting to get certain students out of their classes or giving up on them to become teachers who seriously reflect on their teaching and explore ways to better accommodate all learners. These teachers incorporate phonological awareness into their lesson plans, use more activities that use a variety of modalities and learning styles, and focus more on students' needs and goals rather than rushing through a number of curricular objectives. The teachers try what they have learned from professional development such as using highlighters and teaching rhyming and minimal pairs. They discuss their experiments with colleagues and report that they are beginning to feel more equipped to serve their beginning level students in a way that leads to more student success. Finally, we have anecdotal evidence that some students who have repeated a level more than twice in the past are beginning to make gains. One teacher reported that after participating in the professional development and implementing what she had learned, all of her students who had repeated her class passed in the most recently completed semester. This was a first for her. Furthermore, the teachers have stated that they see more self-confidence and determination to succeed in their struggling students. But even with these important improvements, we know that there is still more to do.

Future Plans

In the coming months, we will start a study circle on working with beginning level students who have limited formal education. We have also planned more in-depth training for our tutors and teacher aides so that they can better work with those students who need extra help. In addition, we will pilot two different programs to help our beginning-level students. One program will offer specialized Level 1 and 2 ESOL classes with teachers who have been trained in special techniques to enhance literacy, such as working more with multi-sensory activities and direct phonological awareness instruction. The other addition is a class in Spanish native language literacy. It is generally accepted that students who are literate in their native language can more easily transfer that knowledge when learning a second language; we hope that some of our students who have repeated a level more than twice may be able to make gains in acquiring English if they become literate in their native language. We will also implement hearing and vision screening during intake in order to identify learners who may have these physiological deterrents to their learning. We will refer them right away to receive the services they need to be more successful students.

One question that we are beginning to wrestle with is what to do with the handful of students who have very high speaking abilities in English, but very low literacy. We are considering whether these students would be better served solely on a one-to-one or very small group basis rather than in a regular classroom.

The past few years of working on this issue have proven very interesting and challenging. We will continue to use data and observations to make programmatic changes and provide professional development relevant to ensure that all learners who are struggling to progress get the support and instruction they deserve.

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About the Author

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Charter School Funding for Adult Education

The Carlos Rosario International Public Charter School, in existence since 1970, was granted a charter contract in 1998 under the District of Columbia's charter school legislation, the first adult education school in the nation to become a charter school. The District of Columbia charter legislation provides for not only traditional K-12 education, but also continuing education, adult education, and career training. As public schools, charter schools receive public funding based on the number of students enrolled in the form of per-pupil allotments, so students do not pay tuition.❖

A Conversation with FOB...

Legal Issues Related to Adults with Learning Disabilities

*A*dult basic education (ABE) program staffs are understandably concerned about the complex legal issues related to adults with learning disabilities (LD). Focus on Basics (FOB) *turned to learning disabilities advocate Glenn Young for information on this topic. From 1991 to 2004, Mr. Young served in several federal positions addressing learning disabilities in low-income and minority adult populations. As a member of the staff of the National Institute for Literacy, he helped produce the* Bridges to Practice Guidebooks*, an overview of federally-supported approaches to addressing LD in ABE programs. Mr. Young reminds us that ABE programs have a wide range of freedom in addressing LD issues with individual students and in their overall*

program design. Choices do not require giving or funding formal assessments; nor do the have to involve other extensive costs. Teachers and programs, he points out, are able to ask about LD and discuss options with persons who appear to have LD. They can help find ways for people with LD to get assessments for LD if they want, so long as the intent of the questioning and discussion is to ensure that students have an equal opportunity to benefit from a program and to increase the success of the student once in the program.

FOB: Let's suppose I'm a new ABE program director. By ABE program, I mean programs that serve any level, from basic literacy through GED, and English for speakers of other languages. What, in a nutshell, should I know about the legal aspects of learning disabilities and how they affect my program?

GLENN: It's nothing you can put in a nutshell. It's a complicated but critical issue. All adult education and literacy administrators need to be aware of legal issues that affect the adults in their programs who have documented or undocumented learning disabilities.

FOB: What does the phrase "equal opportunity to participate" mean in terms of my program?

GLENN: With ABE, the qualifications for participation and the process for applying for services are minimal. Anyone can participate if they need skills. Also, unlike programs funded by Temporary Assistance for Needy Families (TANF), applicants don't have to complete lots of paperwork, which is sometimes a barrier to "participation". So, on the surface, ABE participation procedures may not look like they would cause any problem under the rubric of "equal opportunity to participate".

However, we need to expand our concept of "participation". Equal opportunity to participate is judged by what services are offered, how, and where they're being delivered. An example: if a person is blind, you can't give them a worksheet and expect them to learn. So, even though they are let into the classroom without discrimination, if the services are designed in such a way that the person with a disability can not really participate, based on the impact of the disability, they don't really have equal opportunity to participate.

FOB: Does that imply that simply getting into a program isn't the only requirement?

GLENN: Right. The ability to "get into" programs or services isn't really the issue; equal access, equal opportunity, and the way services are provided are the true issues. Have you thought about why so many ABE students drop out? Is it because how the services are delivered does not

meet the needs of persons with disabilities or does not really take disability into account? If you're re-creating the format and design of the educational system in which this population has failed before, because

with disabilities from participation because of their disabilities. Not pertinent is the Individuals with Disabilities Education Act (IDEA) or the law governing special education. This law applies only to children in

for disabilities. Both of these documents relied on the differences between Title I and Title II of the ADA. They pointed out that, unlike with employment issues, where asking the question "Is there is a disability?" can be seen as a means of covertly or overtly discriminating against the job applicant, in public service settings such as ABE or TANF, the reason for asking whether the consumer has a disability is seen as a "pathway" question. It is asked to find out how the program can provide appropriate and accommodated services based on the presence of the disability. Therefore, the most relevant federal statements on the issue of screening indicate that it is an acceptable activity if used for the right purposes.

> "*Equal opportunity to participate is judged by what services are offered, how, and where they're being delivered.*"

they have disabilities, you've got a problem. You're not giving persons with disabilities an equal opportunity to benefit because you're giving them a system that has already failed for them.

The purpose of identifying that someone has a learning disability is to ask: what is the approach to learning that this person needs to meet their requirements based on their disability? That's clearly not a one-size-fits-all approach.

FOB: Which of the civil rights laws related to adults with learning disabilities most directly affect my program?

GLENN: The overarching civil rights law impacting adults with learning disabilities is the Americans with Disabilities Act (ADA) of 1990. Within the ADA there are four major titles addressing differing areas of concern, including employment, public services (government), public access (accessing general goods and services), and telecommunications. ABE programs, for the most part, fit under ADA Title II, government services, because they receive some kind of public monies directly or indirectly.

In addition, ABE is housed under Title II of the Workforce Investment Act (WIA), and WIA has a non-discrimination section (Section 188). The Rehabilitation Act of 1973, Section 504, also requires that federally funded programs do not exclude those

school and is not relevant to ABE.

All civil rights laws include a clear statement that money issues alone should not be the determining factor in deciding if issues of disability need to be addressed. Therefore, even though ABE does not directly allocate funding towards the identification of the disability, it does not de-obligate ABE from addressing the issues. Unfortunately there is simply less overt funding available to do so.

FOB: Does my program need to screen people to determine whether they have learning disabilities?

GLENN: I think that all persons should be screened, but do programs legally have to? Can they screen without violating ADA?

The most important rulings on this come from two items concerning TANF, which is administered by the US Department of Health and Human Services (HHS). The first was the findings in a civil rights complaint that was lodged against the Commonwealth of Massachusetts. The second was guidance to the states from HHS on issues of disabilities and TANF in January 2001. Both the findings in the complaint and the guidance stated there is an extensive amount of undiagnosed disability in the welfare and adult basic education populations, and in order to ensure that these populations benefit from the system, there should be screening

FOB: So if my program does not get TANF funds, I do not have to screen for learning disabilities?

GLENN: Under ADA Title II, and based on the HHS guidance and the civil rights complaint, you can and should ask potential students if they have a disability for the purposes of trying to ensure that they gain access to the service and proper benefits. They may not know they have a disability or may not disclose a disability. Therefore, how you ask the questions is equally as important as if you ask the question. Using validated screening tools helps, as does letting potential learners know that your program setting is different from K-12, and the reason your program is asking about disabilities is to help the learners get the right teaching methods and accommodations they need so they can learn efficiently.

Programs need to be very supportive of the person with LD (either identified or unidentified), and help them gain, for perhaps the first time, an understanding of the LD. This means that programs also need to know what LD really is, not the myths of LD, but the science of LD.

Therefore, you should be administering a screening process, and if the screens indicate, you should try

to get people formal diagnoses. But unlike TANF, ABE is not required by law to pay for the diagnostics.

FOB: Is it my program's responsibility to identify learners with LD?

GLENN: It depends. Are you talking about legal, moral, or educational responsibility? Also, what does it mean to identify? Do you mean formally or informally? The primary focus of the adult disabilities civil rights laws is to prevent discrimination, not to guarantee success. The focus puts the obligation on programs to institute approaches to ensure that there are not practices in place that are discriminatory. In other words, your program has an obligation not to discriminate, bypass, or reject the person based on a disability, but to assure the person has "an equal opportunity to participate" and "an equal opportunity to benefit" from the program. This concept of equal opportunity should govern what you're doing. What we have in the way of rulings and guidance from the federal government indicates that programs should make efforts to at least informally identify, but the requirement for formal identification varies from setting to setting.

FOB: To clarify, ADA doesn't require that a program pay for diagnostics?

GLENN: Under WIA Title II, which governs federally-funded adult basic education, there's no obligation for the program to do the diagnostic testing. Under TANF, there is. In the United States, there are "layers of laws" with civil rights laws being the top layer. WIA and TANF laws and operational policies can not violate the intent and purpose of the ADA (the civil rights laws). Both WIA and TANF and all other "program laws" need to write policies that incorporate ADA requirements. Sometimes mistakes are made in the writing of the laws or the

policies; these mistakes are addressed through civil rights findings and additional guidance. The Massachusetts civil rights suit and the HHS guidance give us an understanding of how Title II of the ADA must be addressed in service programs.

An ABE program can partner, look for, help to find diagnostic testing, or waive the need for testing within the program. Under WIA Title II, there's no statement that says that

> "*If someone is going to need documentation to get GED accommodations, the program should want to help them find the testing, but they're not financially liable.*"

you need formal documentation to "prove disability" in ABE settings or that you need to provide appropriate services based on disabilities in ABE programs. In ABE you can provide any type of service and call it "teaching methods" rather then the formal disability term of "accommodations". The real need for formal diagnostics only starts for most people with LD in far more "formal" settings then ABE, such as in gaining accommodations for the tests of General Educational Development (GED).

If someone is going to need documentation to get GED accommodations, the program should want to help them find the testing, but they're not financially liable. Some states, such as Arkansas, have actually used state ABE money to pay for a set amount of testing a year. Other states have found "pro bono" testing from the states psychological associations. So even though there may be no financial resources in ABE to pay for testing, many programs have found resources to do so.

FOB: Under the ADA, do we need to teach everyone with a disability regardless of if they make progress or not?

GLENN: The short answer is no. You don't have to keep teaching someone if they are not making progress because of the disability, but again, this is a complex question that requires a much more complex answer.

Part of the issue that needs to be addressed in determining if the student is covered under the ADA is: what is the

essential function of the task required to succeed in the program? To be a "qualified individual" for protection under the ADA, a person needs to be able to perform the essential function of the task, with or without accommodations. ABE programs have a wide range of essential functions: reading skill development, preparing for the GED, and English for speakers of other languages. In each of those types of programs the "essential function" can be different. To determine if you should or could stop providing services to a person with a disability, the first question the program needs to ask is: what is the essential task of what we are doing? If it is strictly a reading program, and the person, based on the impact of their disability, can not learn to read and advance in reading, despite provision of accommodations and assistive technology to enable that person to learn to read better, they are most likely no longer considered a "qualified individual." They can not perform the "essential function" of the task (learn to

read) with or without accommodations. They are not covered under civil rights law because they are not capable of performing the task. But if the task is to prepare to pass the GED, then the issue is not reading per se, it is "information gaining" and that is a different skill than just reading per se. If your program only provides GED preparation using one method (reading) that this person with a disability can not do based on the disability, then the program is not providing the person with the disability with an "equal opportunity to benefit". The program has an obligation to provide the information through accommodations and assistive technology so the GED learner can benefit (for more on assistive technology, see the article on page 16).

In summary, the goal of the federal civil rights laws is to ensure non-discrimination against persons with disabilities which, in turn, can be instrumental in enabling learners to reach their potential. By giving persons with LD the appropriate tools to function effectively without the barriers raised by their disabilities, they can maintain and enhance that success. By providing equal opportunities to participate and benefit, ABE programs will be in compliance with the law.

Resources

For more information on the laws governing LD in ABE, visit these Web sites and look for the sections that discuss laws and policies: www.nifl.gov/nifl/ld/reports/bridges _pt1.pdf (See pages 34 to 39 for, among other information, a discussion of the rights and responsibilities of learners with disabilities and of literacy programs, and the legal implications of serving adults with learning disabilities.) able-ohiou.org/ld_training_vide www.ncsall.net/fileadmin/resources /ann_rev/silver-pacuilla-04.pdf www.ldonline.org/article/6098❖

Enabling ABE Students with Learning Disabilities to Persist in College

by Gabrielle Gerhard

Adults with learning disabilities face serious challenges in adult basic education (ABE) (Corley & Taymans, 2002). These challenges do not lessen when adults move from ABE to higher education. Persisting in college is difficult, especially for ABE students with diagnosed or undiagnosed learning disabilities. ABE programs must ensure that they do not position their students for disappointment in higher education by failing to provide them with not only the academic skills they need, but also with the civil rights knowledge and advocacy skills that adult students must use to get the services to which they are entitled in higher education institutions.

The three students described in vignettes in this article did not face academic barriers in ABE. Perhaps the instructional methods addressed their learning disabilities; perhaps the work was a review of what they had learned in the past; perhaps the support and encouragement they got from their ABE instructors mitigated their disabilities. Regardless of the reasons, their ABE programs did not provide them with information about their disabilities, nor did their K-12 settings provide it. Their ABE programs did not educate them about the support

services available to help them negotiate the college environment; they knew little about their own learning styles and how best to study. Their lack of knowledge about their learning disabilities and related topics hampered their progress in college, causing the success they had shown in making the transition to college to be bittersweet.

These vignettes come from interviews with and in-class observations of former ABE students about their perceptions of the transition from ABE to college. Lana, Patricia, and Joan all described having learning disabilities that negatively affected their progress as students, not in ABE but in college and pre-college classes. As they navigated the more independent academic environment of college, their limited understanding of their learning issues reduced their ability to advocate for services appropriate to their needs. Lana attended ABE at a community-based organization, and Patricia and Joan were in ABE at the community college where they continued their studies.

Lana, Patricia, and Joan

Lana, a 45-year-old woman, had studied ABE at a community-based organization and now took developmental math and English at a community college. She was formally diagnosed with dyslexia as a child and struggled with her learning disability, explaining, "I can't seem to rise above it, so it's been difficult for me, but I keep pushing." She attended three high schools, finally earning a GED in her 30s. She worked at different jobs and

participated in training and education related to employment several times, but felt she was not successful, saying "I get frustrated, and I'm just always at below average on everything."

Lana failed her developmental math class and was at risk of failing again. She was tutored several times a week, said she did homework regularly, and studied for tests, but still had difficulties. "A specific example is I can study math all week long. ... and then I really cram on Saturday ... and take a test .... If there are 10 questions on that test, I'm gonna miss three of them." Lana got a tutor and felt that her tutor was important. "Because, what they do is, a tutor will ... see that, okay she's having problems, let's keep doing this over and over, this one problem, or [in] different ways, so that it reinforces and she gets it."

Patricia, a 43-year-old woman, had worked mostly at fast-food jobs, then took computer classes to develop job skills and later joined an ABE program. She eventually graduated from the same institution as her ABE program with an associate degree and transferred to a four-year college. When she was interviewed, she had just graduated with a bachelor's degree. Reflecting on the transition from ABE to college-level courses and then to a four-year college, Patricia described her learning disability in this way: "[My] mind would flow to other things." She had a hard time with memorization as well as retaining content when moving from one course to the next. Patricia tried to do additional research on her learning issues: "I couldn't find anything, really. Everything was too broad."

Patricia also had tutors, but felt they were not able to meet her needs as a learner. "They were not in tune

with what I needed. ... I got to the point where every time they tell me something, they'd go, 'You understand?' If I said no, they didn't know how to break it down to my understanding." Despite earning a bachelor's degree,

> "*Their lack of knowledge about their learning disabilities and related topics hampered their progress in college, causing the success they had shown in making the transition to college to be bittersweet.*"

Patricia was still surprised that she had passed her earlier community college math classes. She was amazed that a teacher gave her a good grade. "But see, I should give myself more credit. I did study, I did. But ... how come when I go through my classes, even the lower ones ... and I study and I start getting it, when I move on, I forget what I learned?"

Joan, a 41-year-old woman who worked as a childcare worker and a nanny, was in the cosmetology program. She had not attended high school and came to college to earn a GED. After receiving it, she enrolled in developmental courses at the college, where a developmental English instructor told her she was dyslexic, saying, "You've got a real bad case of it." Joan seemed surprised by the suggestion that she was dyslexic and wanted to get more information: "Yeah, I would love to know if that really is a problem that I've got."

Joan faced difficulties in her developmental math class. She recorded the math homework incorrectly because she mixed up b's and d's. A fellow student noticed. "He'd say, 'Joan, you wrote it backwards.' And I'm like, what?" When the class began algebra, Joan's difficulties with the subject matter grew because of the use of letters in equations. She tried to get help from

her daughter and boyfriend. Finally, she asked the teacher not to call on her for board work, explaining her disabilities. He agreed at first but soon called on her frequently. "It's like he forgot that I'd mentioned anything to him ... and I was humiliated, so I just finally just quit going." Joan advocated for herself by talking with the instructor. However, as the teacher continued to call on her, her difficulties in class grew overwhelming. She chose not to speak with the instructor again or get outside assistance and left the college before the end of the term.

When Joan re-entered college, this time in a cosmetology program, her learning disabilities hampered her progress again. She worked with a tutor, spent extra time studying, and got help from instructors, but failed the most recent in-class test, saying: "...that's because I didn't meet with my tutor for a whole week." Describing the cosmetology tests: "And a lot of my questions on my Scantron [computer graded exam form] I get wrong, I bet, I marked 'b' or 'd' and they were a 'b' or a 'd', and I wonder, did I know that question, and I marked it wrong?" Joan received an accommodation of additional time on cosmetology theory tests, which she was reluctant to accept. But additional time on multiple choice tests did not seem to meet her needs, as she had difficulties with letters used to mark the test sheet. Joan tried to find ways to manage independently, and with assistance from family and instructors. Nevertheless, she was still struggling, and afraid she would fail the second quarter of the class.

Discussion

Lana's, Patricia's, and Joan's lack of knowledge about their learning

disabilities hampered their progress as college students. Other ABE students who have the wherewithal to go on to college should not have to face the hurdles they did. ABE students with learning disabilities or learning difficulties should transition from their ABE programs into post-secondary schools with explicit, individualized information about their learning needs. They should know what services are likely available at colleges and how to access them. What may seem like a sensitive topic in the adult basic education setting, one that can be sidestepped by skilled instruction, becomes a topic vital to success in higher education.

When adult students enroll in ABE or college, they can choose to self-identify as learning disabled. Some may choose not to self-identify for fear of stigma, or embarrassment, or out of pride. Others may be unaware they have a learning disability. But ABE programs have a responsibility to try to identify students with learning disabilities to ensure they can access all the ABE program has to offer. Programs can do this through the intake and assessment process, sometimes teachers identify students as learning disabled. Lana's, Joan's, and Patricia's experiences reveal that by not addressing learning disabilities explicitly, ABE programs can, in fact, be doing their students a disservice. This disservice is particularly marked in Joan's and Patricia's cases, since they

transitioned from ABE to college within the same institution.

Colleges, too, should be eager to determine which of their students have learning disabilities and provide explicit information on learning issues. They must reach out to students with the support services they have in place, such as formal accommodations, tutoring, and other support services. Colleges should also consider whether additional services are necessary, such as expanded faculty and tutor training in the area of learning disabilities and orientations for new students. Only when ABE programs, colleges, and learners work together will students with learning disabilities find that their successful entrance into college is indeed the first step towards successfully completing college.

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About the Author

Gabrielle Gerhard finished her doctoral dissertation in June, 2007, at the University of Washington. Her current research interests include connections between postsecondary and adult basic education, learning disabilities in adult learners, and policy in adult education.

Learning Disabilities and Ohio: Policies and Professional Development

Not just policies but training resources, perseverance, and new approaches are needed to ensure that change truly occurs

by Sharon Reynolds with Katrina Seymour

For more than 10 years, the Ohio Department of Education's Adult Basic and Literacy Education (ABLE) office — which oversees adult basic education (ABE) in the state — has been providing local programs with assistance so that they can better serve students with learning disabilities (LD). As a result of mandated LD training for all ABLE administrators and instructional staff, local ABLE personnel understand legal issues that surround the provision of services to students with learning disabilities. Practitioners know how to use screening instruments and are familiar with appropriate methods of instruction. This article traces Ohio's efforts to ensure that policies become practices that have the positive impact they are designed to have.

The Beginning

In the early 1990s, national reports speculated that a sizable percentage of students in ABE programs had learning difficulties. In Ohio, feedback from front-line staff in local programs seemed to confirm this. They reported that many students had slow or erratic progress when taught with traditional methods. Some students, for example, tested at widely differing levels from one evaluation to the next. In response, the Ohio ABLE office encouraged programs to apply for grants to become trained to use *PowerPath® to Education and Employment*, used at intake to screen learners for processing disorders, vision, and hearing difficulties. *PowerPath®* does not provide a diagnosis, but it does equip teachers with detailed information about their learners that can be used to choose appropriate teaching strategies. It also supplies information teachers can use to talk with learners about their strengths and weaknesses, enabling them to understand why they have difficulty learning. (At the time, *PowerPath®* did not have screening tools suitable for students of English for speakers of other languages ((ESOL)). When these tools were added, Ohio programs started to use them.) In 1998, the ABLE office supported the Ohio Literacy Network (OLN) — an organization of local ABLE programs — as it competed for a National Institute for Literacy grant to enhance the capability of volunteer-based literacy programs to address the instructional needs of students with diagnosed or undiagnosed learning disabilities. OLN received the grant, and a team of professional staff was trained by the national Bridges to Practice initiative in methods for screening and instructing students who possibly had LD. This team then trained staff in eight volunteer-based programs in Ohio. Subsequently, the Ohio Bridges to Practice training team reached even more programs through a statewide incentive grant program.

Ohio has four regional resource centers for ABLE programs, each with a specialty area. The Central Southeast Resource Center, at Ohio University, adopted learning disabilities as its primary focus. A Special Needs Task Force, which is still active, composed of representatives from local ABLE programs, the Central Southeast Resource Center, and the state ABLE office, was formed to provide recommendations to the state office on policies and needed training and resources. The infrastructure was being set in place.

Mandatory Involvement

In 2003, the Special Needs Task Force recommended, and the Ohio ABLE office agreed, that the time had come for the more than 130 Ohio

ABLE programs, not just those who chose to do so, to establish policies and procedures for serving students with suspected or diagnosed learning disabilities. More than half of the ABLE programs are physically located and fiscally managed through location education agencies; post-secondary institutions and community-based organizations are also providers. A mix of paid teachers — mostly part-time — and volunteers provide instruction. Drawing upon national policies as well as policies from Arkansas and West Virginia, the Special Needs Taskforce generated 10 policies specific to Ohio (see them in the box on page 40). These were made available online via the Ohio *Learning Disabilities Policy and Planning Guide* at www.able-ohiou.org (click on Learning Disabilities). As program administrators and staff work their way through the guide, they learn about learning disabilities in general and each policy in particular. They also develop program-specific plans which they update annually for serving students with LD.

Challenges with Screening and Diagnostics

Nothing is simple, of course, and the Central Southeast Resource Center, which administers the online *Guide*, experienced some technical problems the first year. Several administrators lost significant amounts of work and others were understandably wary that their data would be lost. The second and third years were much easier. Now feedback is positive from program administrators across the state, who remark on the value of having all of their updated current information, including their local processes related to serving adults with learning disabilities in one place.

They are using the *Guide* as a reference tool and for staff development, not just as a mechanism via which to comply with the requirement to have program-specific policies.

With the *Guide* in place, Ohio began to see changes. State policy requires that all local ABLE programs not only screen students for learning

> "*…the time had come for the more than 130 Ohio ABLE programs … to establish policies and procedures for serving students with suspected or diagnosed learning disabilities.*"

disabilities but also refer students, as appropriate, for further diagnostic testing. The *Guide* recommends seven assessment options for screening: *PowerPath®*, Washington 13, Destination Literacy, Adult Learning Disabilities Screening, Payne Inventory, STALD, and Cooper Screening of Information Processing. The first year or two, most programs used Washington 13. Validated for adults, it is free, quick, and easily administered. Programs are finding, however, that it over-identifies students as potentially learning disabled. Programs are now frequently choosing to use an additional tool, often the Cooper or STALD. These are lengthy but give more comprehensive information.

In 2005, according to ABLELink, Ohio's data management system, Ohio programs conducted approximately 8,200 screenings resulting in more than 1,170 students recommended for further testing. A student who is recommended for further testing meets with a teacher, who explains that the student may have a learning disability and should consider being tested. The number of students who actually do go on for further testing is very small. An informal online statewide survey revealed that those who chose not to be tested either see a stigma attached to

it and do not want to be labeled, lack the resources to pay for testing, or do not have access to transportation or childcare. Those learners who do get tested have a specific goal, such as to receive accommodations on the test of General Educational Development (GED), or at work. They also already have a level of self confidence; they will not be ashamed of being "labeled" and recognize that the diagnosis will actually provide benefits.

Of the 1,170 students who were recommended for further testing, 166 students chose to be referred for testing, and 30 were diagnosed as having learning disabilities. In 2006, ABLELink showed that the number of screenings tripled to more than 28,300, with more than 4,750 recommended for further testing. Of those, 570 were referred for testing and 84 were diagnosed as having learning disabilities. We were pleased with the growth in the number of students being screened, referred, and accessing diagnostic services. And, using the information gleaned from the screenings, learners better understood their learning needs. Teachers were trying new instructional strategies. At the same time, the need for resources for diagnoses became increasingly apparent.

Many ABLE students cannot afford diagnostic testing, which often costs more than $500. Cost has not been the only issue. Psychologists generally were unfamiliar with the ABE population, and finding a qualified professional to do the testing was difficult. The same was true for vision and hearing: there was a dramatic increase in screening, but not in actual

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Resources

See *Focus on Basics* 7D for more on the use of *PowerPath®* in Ohio, at www.ncsall.net/index.php?id=829 ❖

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use of glasses and hearing aids. The number of vision screenings grew from 277 to 984; hearing screening increased from 99 to 458. But even though the number of students identified as needing hearing aids or glasses grew, the number of students

> "...those who chose not to be tested either see a stigma attached to it and do not want to be labeled, lack the resources to pay for testing, or do not have access to transportation or childcare."

receiving these items stayed low. Of 44 students who were recommended for glasses in 2006, only six reported receiving them. Only five students received hearing aids in 2005. Those dismal numbers demanded a response.

The Central Southeast Resource Center addressed the issue by contacting the Ohio Psychological Association in 2004, explaining ABLE and urging psychologists to offer their services to ABE students on a sliding fee scale or at a reduced cost. The Resource Center established an online directory with a clickable map of Ohio. Anyone can open the page and click on the county of their choice and find a list of participating providers. Such databases take time to maintain and keep current. This year the Resource Center added a staff person to update the network and expand it to include providers of vision and hearing services. To access the Ohio Psychologists Network, click on tinyurl.com/29f73a.

Trying to Change Instructional Practices

Ohio policy requires that all local ABLE instructional staff attend training on serving and instructing students with learning disabilities. The core training series consists of three workshops. One is a session for administrators, aimed at facilitating systemic change at the local level. Designated LD 101, this workshop focuses on the legal issues surrounding serving adults with disabilities as well as the systemic changes that need to occur to provide the best services possible to adults with LD. Instructors and support staff attend a full-day overview of learning disabilities, LD 201, which was made available online beginning last year in response to feedback from ABLE staff (see www.able-ohiou.org). It offers an overview of what a learning disability is (and is not), the law, assessment, screening and diagnosis, planning for instruction, effective instructional techniques, and a section on ESOL and learning disabilities. Perhaps the most emotional part of the training is a personal story by student Marshall Adkins. He says of his childhood, "I thought there was a secret or something that I was overlooking. I didn't know I really had a problem." He goes on to talk about how he was diagnosed after his son, 14 years old, was diagnosed with dyslexia. He described the relief that the diagnosis brought him. "I knew it was something I could not help, but I knew I could manage it. Once I knew what it was, I could face it."

The second full-day workshop for instructors, LD 202, provides demonstrations and hands-on practice with instructional strategies for the classroom. Finger multiplication, windows math, assistive technology, and multi-sensory approaches are included.

More than 400 practitioners have accessed the online introductory training. While many participants report attending because it is required, post-workshop feedback is usually positive. One teacher noted, "It is frustrating for teachers when we can't find a way to tear down the wall that separates us from our learners, when we aren't reaching them. Their struggle is our struggle. Learning new and different teaching strategies made a world of difference for so many of my students, especially those struggling at levels one and two. It showed them that the ABLE experience was not going to be like their discouraging (and often traumatic) school experience. We were going to try new things and when one approach didn't work, it was all right because we had another one to draw upon."

The Next Step: Peer Coaching

ABE teachers in parts of Ohio cannot walk down the hall and visit each other's classrooms, or chat during breaks. Southeastern Ohio is rural and mountainous. Some programs, for example, have 10 teachers, but they teach at different times and in different locations. Supporting each other as they translate the knowledge gained at training into changes in practice has not been smooth. Program personnel reports and observations by state ABLE staff and resources center staff indicate that additional supports are needed to enable teachers to implement new instructional and classroom management techniques. The Resource Center explored peer coaching as a next step.

Peer coaching involves two professionals with similar positions in coaching each other: Teachers coach teachers, administrators coach administrators. Through the coaching process, practitioners explore ideas; question behaviors and assumptions;

think through challenging situations; and develop lasting, supportive and collegial relationships. Even though coaching can take many different forms and be successful in many different settings, coaching programs have certain characteristics in common. Coaching does not involve evaluation. Coaches are invited by the interested teacher or administrator, not suggested by the supervisor as remediation. The coach provides a supportive, objective point of view and remains nonjudgmental. The conversations between the coach and the "coachee" remain private. Coaching provides teachers with the support they need to try out new methods and jettison less useful practices.

Two Ohio resource centers jointly coordinate the program, having contracted with the National Staff Development Council (NSDC) to train a dozen coaches who will focus on LD. They are now working with teachers and administrators via phone, e-mail, or in person. As one participant wrote, "I was surprised how encouraging the coaching session was. She gave me new ideas and approaches, as well as being positive about methods I had tried already. It made me feel more confident as a teacher, and therefore a better one. It was good to share ideas with another teacher [who works] under similar circumstances." This support should enable teachers to implement the strategies they learned in workshops back in the classroom.

Ohio ABLE Policies on Serving Students with Learning Disabilities

1. Adult Basic and Literacy (ABLE) programs will not discriminate against individuals with disabilities against individuals will ensure that all service are accessible. Federal law requires that ABLE programs meet the administrative requirements of the Americans with Disabilities Act.

2. ABLE programs will have a documented learning disabilities screening process in place.

3. ABLE programs will maintain a signed waiver if a student declines a learning disabilities screening.

4. ABLE programs will keep confidential all information related to students' disclosure and documentation of disability and/or screening information. In the case of the latter, a program will obtain a signed and dated Release of Information from the student in order to share screening information.

5. ABLE programs will establish a procedure, with the student's consent, for reviewing results of diagnosis and if applicable, recommend accommodations and /or meeting with the students and diagnosing professional to review results of diagnostic testing.

6. ABLE will provide instructional adaptations to assist students with suspected or documented learning disabilities success.

7. ABLE programs will provide accommodations to students with diagnosed learning disabilities to help ensure they have equal access to services.

8. ABLE programs will have sufficient number of staff members adequately trained to understand the legal requirements surrounding service to students with learning disabilities, to administer LD screenings and to plan and implement instructional adaptations and accommodations.

9. Programs will collect data for input into ABLElink per Ohio Department of Education requirements.

10. ABLE programs will annually update its LD Plan per requirements established by the Ohio Department of Education ABLE office. ❖

In Conclusion

The Ohio ABLE system has come a long way in the past decade in providing services to adult students with learning disabilities. We have a solid set of state policies relating to serving adults with learning disabilities. We have a complete online resource to assist program administrators in developing their LD plan of service. Professional development is offered in multiple formats to increase awareness, increase access to screening and diagnostic services and to impact classroom practice. LD resources can be accessed through the Resource Center Network in each region of the state. The next goal is to increase access to diagnostic services and to continue to support change in classroom practice. A promising collaboration has formed with the Ellis Institute, a training facility for clinical psychologists at Wright State University in Dayton, Ohio. More collaborations such as this one are needed. We have come a long way, but more lies ahead.

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About the Authors

Sharon Reynolds is the Coordinator of Ohio's Central Southeast ABLE Resource Center and has been in the field of education for 17 years. She has been Curriculum and Training Specialist at the Resource Center, and has also coached teachers. Sharon graduated with a BS in Education of the Hearing Impaired/ Elementary Education from Trenton State College and received her MA in Education specializing in Curriculum and Instruction/ Instructional Technology from Virginia Tech.

Katrina Seymour has been involved in adult education in Ohio for more than 10 years. In her career, she has acted as coordinator of the Pickaway County Literacy Council, family literacy teacher, family literacy coordinator, Pickaway County ABLE-GED coordinator, and ABLE teacher. Recently, she was trained as a peer coach and has enjoyed interacting with her peers in that capacity. ❖

Arkansas Adult Education & Literacy

Policies, Procedures, and Professional Development for Serving Adult Students with Learning Disabilities

by Patti White

*T**he Arkansas Department of Workforce Education, Adult Education Section (DWE-AES), has worked since 1994 with Arkansas Literacy Council, Inc., and the Arkansas Adult Learning Resource Center (AALRC) to develop policies and procedures for teaching adults who have learning disabilities. After years of professional development and diligent committee work, the following activities and outcomes have been achieved:*

• **In 1994**, the AALRC conducted the state's first training opportunity for adult education and literacy providers regarding teaching students with learning disabilities.

• **In 1996**, the AALRC distributed the Policy & Procedure Manual for Serving Students with Learning Disabilities and/or Attention-Deficit/ Hyperactivity Disorder. In 2002, the manual officially became state policy. The manual may be viewed and downloaded from aalrc.org/resources/ld/policyManual/index.aspx.

• **In 1997**, the AALRC received a grant from the National Institute for Literacy to disseminate an interagency version of the Bridges to Practice training to a number of state agencies in Arkansas, and to work with 13 identified states to replicate the Arkansas training. More than 1,500 interagency personnel completed the training by 2002.

• **As a result** of the interagency training participation, the Disability Support Services' PACE program at the University of Arkansas at Little Rock developed a video series to provide training for university professors regarding instructional and testing accommodations for students with learning disabilities. For more information go to www.ualr.edu/pace/

• **In 2002**, Arkansas Rehabilitation Services (ARS) agreed to provide WAIS-III testing for students who need to request accommodations on the GED tests and are eligible for ARS services. The WJ-III testing is provided by adult education (see next bullet).

• **Also in 2002**, DWE-AES agreed to use a portion of state leadership funding to contract with local mental health clinics throughout Arkansas to provide WAIS-III testing for students who need to request accommodations on the GED tests, but are not eligible for a referral to ARS. GED test examiners received training and materials to conduct the WJ-III tests in-house to complete the GEDTS accommodations request requirements. For more information about the referral process, go to aalrc.org/resources/ld/referralProcess.aspx.

• **In 2003**, the focus on learning disabilities was expanded to include students with all disabilities. The AALRC has since purchased almost $20,000 worth of assistive technology devices and software, available to adult education and literacy students statewide.

• **Since 1994**, the number of students who request and receive GED accommodations for learning disabilities has increased by almost 1000 percent.

• **The AALRC** continues to provide learning disabilities' training each year, including statewide workshops and workshops for individual local programs. The AALRC's Disabilities Project Manager is available upon request for individual student and/or teacher consultation.
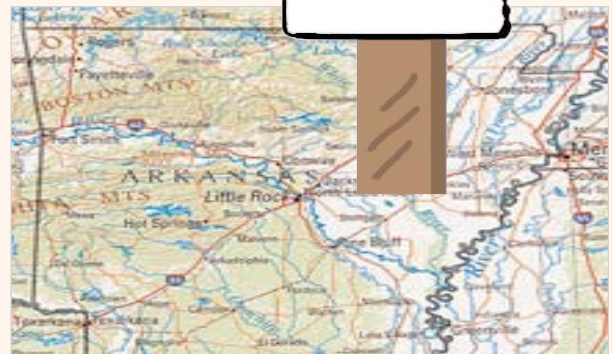
BLACKBOARD

Resources

■ Watch a video on what it is like to be dyslexic or have ADHD at www.headstrongnation.org/documentary.

■ The National Institute for Literacy hosts a very active, very useful electronic discussion list on learning disabilities. To find out how to subscribe, go to www.nifl.gov/lincs/discussions/discussions.html.

■ The Learning Disabilities Association of Minnesota publishes *NetNews*, an excellent source of information and research as well as instructional strategies for working with adults challenged by special needs. www.ldaminnesota.org/news/net_news.html. The November 2007 issue, Volume 7 Number 1, is on Accommodations.

■ LD Online, a Web site run in association with the National Joint Committee on Learning Disabilities, features an article worth reading, "The law after high school" by Patricia Latham, available at www.ldonline.org/article/6098.

■ Florida's Web site on LD has many resources and links to other useful Web sites: www.floridatechnet.org/bridges/.

■ Ohio's Central Southeast ABLE Resource Center has a series of online videos on LD called LD Video Links at http://able-ohiou.org/ld_training_vide.

■ Online training on learning disabilities, based on the National Institute for Literacy's Bridges to Practice model, is offered by the Virginia Adult Learning Resource Center. See www.valrc.org/training/online/ for more information.

■ The Fisher Landau Center for the Treatment of LD at the Albert Einstein College of Medicine published a very practical *Guide to Using Technology with Learning Disabled Adults in Adult Literacy Programs*. The first two chapters, on characteristics of students and principles of effective instruction, are relevant for everyone. See www.aecom.yu.edu/cerc/pdf/LD_ACCESS.pdf.

■ The National Institute for Literacy has many resources on LD on its Web site at www.nifl.gov/nifl/ld/bridges/bridges.html. The Institute is no longer updating its Learning Disabilities special collection, but all items entered before 2007 are still available at ldlink.coe.utk.edu/home.htm.

■ Resources from NCSALL
The National Center for the Study of Adult Learning and Literacy (NCSALL) published many resources on LD. Find the link to these at www.ncsall.net/index.php?id=74.

Three articles appeared in the series of books entitled *Review of Adult Learning and Literacy*:

• *Assistive Technology and Adult Literacy: Access and Benefits*
Heidi Silver-Pacuilla (2007)
www.ncsall.net/fileadmin/resources/ann_rev/silver-pacuilla-04.pdf

• *Adults with Learning Disabilities: A Review of the Literature*
Mary Ann Corley and Juliana M. Taymans (2002) www.ncsall.net/?id=568

• *Lessons of Preventing Reading Difficulties in Young Children for Adult Learning and Literacy*
Catherine E. Snow and John Strucker (1999) www.ncsall.net/?id=515

In NCSALL Teaching and Training Materials

• *Reading Difficulties (2005)*
www.ncsall.net/fileadmin/resources/teach/read_diff_role.pdf

■ Earlier in *Focus on Basics*

• "Taking a Closer Look at Struggling ESOL Learners"
Robin L. Schwarz; www.ncsall.net/?id=994

• "Understanding The Complexities of Offenders' Special Learning Needs"
Laura Weisel, Alan Toops, and Robin Schwarz; www.ncsall.net/?id=829

• "Differentiated Instruction: Adjusting to the Needs of All Learners"
Mary Ann Corley; www.ncsall.net/?id=736

• "Not by Curriculum Alone"
Mary Lynn Carver; www.ncsall.net/?id=198

• "Teaching Reading to First-Level Adults"
Judith A. Alamprese; www.ncsall.net/?id=274

• "Using a Multisensory Approach to Help Struggling Adult Learners"
Gladys Geertz; www.ncsall.net/?id=277

• "Techniques for Teaching Beginning-Level Reading to Adults"
Ashley Hager; www.ncsall.net/?id=280

• "Theory to Practice, Practice to Theory"
Anne Murr; www.ncsall.net/?id=275

• "The Neurobiology of Reading and Dyslexia"
Sally E. Shaywitz and Bennett A. Shaywitz; www.ncsall.net/?id=278

• "Accommodating Math Students with Learning Disabilities"
Rochelle Kenyon; www.ncsall.net/?id=325

• "Staying in a Literacy Program"
Archie Willard; www.ncsall.net/?id=418

• "An Odyssey for an Answer"
Grace Temple; www.ncsall.net/?id=418

• "What Silent Reading Tests Alone Can't Tell You"
John Strucker; www.ncsall.net/?id=456

• "Reversing Reading Failure in Young Adults"
Mary E. Curtis and Ann Marie Longo; www.ncsall.net/?id=466 ❖

New From World Education

World Education Publications

Project Care: Health Care Case Studies, Multimedia, and Projects for Practicing English — by Steve Quann and Diana Satin

Project Care provides a mix of case studies, multimedia, and project-based activities for individuals who are working in a health care setting or who have friends or relatives in need of support. The book can be used to supplement a language skills-based text in a variety of educational settings where health care is a topic of interest to students. It can also be used to augment or introduce the intensive study of a specific health issue by moving from medical details of a disease previously covered with a class to a discussion and investigation on how best to help others with the illness. This workbook is accompanied by a companion Web site: projectcare.worlded.org/. The book can be ordered from University of Michigan Press at www.press.umich.edu/titleDetailDesc.do?id =300827.

The Change Agent — edited by Cynthia Peters
The Change Agent is published twice a year in March and September. The September 2007 issue, Taking Action to Stay in School, is now available. This issue explores the ways students support each other and work together to make staying in school a possibility in the face of such obstacles as limited transportation, child care, and personal motivation. *The Change Agent* presents a different topic in each issue. Past topics have included Immigration, Media, Health and Literacy and Values. Each issue includes a range of formats including student writings, picture stories, background articles, comics, classroom-ready activities, and more. For more information visit nelrc.org/changeagent/.

Through the Lens of Social Justice: Using The Change Agent in Adult Education — edited by Andy Nash

This book celebrates *The Change Agent*'s first 10 years of providing social justice resources to adult educators. The book is both a gathering of its best and most timeless pieces and a guide for educators in how to use the paper. It addresses the needs of new and experienced ESOL, ABE and GED practitioners. For more information visit www.nelrc.org/publications/index.html.

Mapping Your Financial Journey: Helping Adults Plan for College — by the National College Transition Network and the National Endowment for Financial Education

Adult learners in the New England ABE-to-College Transition Project and adults around the nation identify financial concerns as their greatest barrier to college.

Mapping Your Financial Journey is designed to address this financial concern of adult learners. This free 56-page publication contains financial planning worksheets, and information about money pitfalls like scholarship frauds. It also contains resources for financial aid, and tips for a successful college experience. See www.collegetransition.org /mapping.html.

Family Health and Literacy: A Guide to Easy-to-Read Health Education Materials and Web Sites for Families — edited by Julie MacKinney and Sabrina Kurtz-Rossi

This guide includes concrete examples of how to integrate health and literacy education, how to get started and engage learners, and how to build connections between literacy programs and local health services. The easy-to-read health education materials and Web sites are organized by health topic such as: nutrition, childhood, medicine use, and stress. View the guide online at www.healthliteracy.worlded.org/docs/family /index.htm.

Order copies online for a small fee or download them for free from World Education's Web site at www.worlded.org/WEIInternet/publications.

For back issues of *Focus on Basics*, go to NCSALL's Web site at www.ncsall.net and click on *Focus on Basics*.

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