Keys to Effective LD Teaching Practice

Funded by the Tennessee Department of Human Services in cooperation with the Tennessee Department of Labor and Workforce Development, Division of Adult Education
Acknowledgements

*Keys to Effective LD Teaching Practice*
was funded by the
Tennessee Department of Human Services.
It was produced by the Center for Literacy Studies (University of Tennessee)
in cooperation with the
Tennessee Department of Human Services,
Families First Services
and the
Tennessee Department of Labor and Workforce Development,
Office of Adult Education.

UT Publication No.: R01-1804-074-LDR2
ISBN No.: 0-9702799-3-0

For further information, contact:
Center for Literacy Studies
University of Tennessee, Knoxville
600 Henley Street, Suite 312
Knoxville, Tennessee 37996-4135
Tel: (865) 974-4109
Dedication

Our motivation in putting together this resource book is very “teacher to teacher” in nature. We want to encourage you—other teachers—to join us as we take steps to improve LD teaching practice—so that adult learners have a sturdier bridge to their futures.

For those able people with learning disabilities we would like to see the “rocks in the road” made smaller—through effective teaching/learning, self advocacy, accommodation, and a focus on Abilities.
# Table of Contents

**Preface** ...........................................................................................................1
The Development of *Keys to Effective LD Teaching Practice* ................. 1
Method of Research ......................................................................................... 1
The LD Action Research Project ...................................................................... 1
Acknowledgements ......................................................................................... 2

**Contributors** .................................................................................................2

**Introduction** .................................................................................................4

**Chapter 1:**

**Preparing to Serve Adults With Learning Disabilities** .......................... 5
Introduction ...................................................................................................... 5
Understanding Learning Disabilities: A Historical Perspective .......... 6
Defining Learning Disabilities ........................................................................ 7
Tennessee Teachers Share Their Understandings About Learning Disabilities ... 9
Understanding the Experience of Adults With LD .................................. 10

**Chapter 2:**

**The Assessment Process** ......................................................................... 13
Introduction ...................................................................................................... 13
The Assessment Process .............................................................................. 13
The Screening Process .................................................................................. 14
Observation Screening: A Key Piece in a Teacher-Learner Partnership ........................................... 14
Variations on the Use of Observational Screening:
The Tennessee Teachers’ Experiences .......................................................... 18

**Psychoeducational Assessment** ................................................................. 24
*How to Read, Understand, and Use Psychoeducational Reports*  
— by Dr. Sherry Mee Bell

**Chapter 3:**

**The Planning Process** .............................................................................. 37
Introduction ...................................................................................................... 37
Preparing to Develop an Instructional Plan ............................................. 37
CHAPTER 4:  
**The Teaching/Learning Process** .............................................. 51  
Guidelines to Effective LD Teaching Practice ................................. 51  
Key #1: Create an Appropriate Learning ...................................... 51  
Key #2: Provide Instructional Adaptations and Accommodations ....... 52  
Key #3: Implement LD-Appropriate Instruction .............................. 53  
Tools and Strategies for LD-Appropriate Instruction ....................... 57  
Direct Instruction: A Model (Framework) for LD-Appropriate Instruction .............................. 58  

**CONTENT AREAS:**  
1. Reading (decoding) and Spelling (encoding) ................................. 59  
2. Sentence Structure and Grammar Using “Word Shapes/Sentence Builders” .... 62  
3. Reading Comprehension .......................................................... 66  
4. Critical Thinking Skills ............................................................. 70  
5. Fundamental Principles of Teaching Math .................................... 81  
6. Building Self-Advocacy Through Writing Activities ..................... 85  
7. Learning Strategies: Learning How to Learn ................................. 88  

**Reflections** .............................................................................. 90  
Hopes and Challenges ..................................................................... 90  
Promising Practices ....................................................................... 90  

**Bibliography** ............................................................................ 92  

**Appendices A-G**
Preface

The Development of Keys to Effective LD Teaching Practice
The Keys to Effective LD Teaching Practice resource book was produced by the Center for Literacy Studies (CLS), University of Tennessee (UT) with funding from the Tennessee Department of Human Services (DHS), in cooperation with the Tennessee Department of Labor and Workforce Development, Office of Adult Education. It was developed in response to a need by adult education teachers for information, guidance, and strategies on how to work with adult students who have learning disabilities. While Keys to Effective LD Teaching Practice was designed as part of a larger project involving teachers in Tennessee’s welfare reform program, Families First, it is appropriate for any practitioner working with adults with learning disabilities.

Method of Research
Action research is an approach to research grounded in practice. It involves a cycle of planning, acting, observing, and evaluating. It is a model well suited for practitioners who, while working with students, hope to learn more about the dynamics of teaching and learning.

The LD Action Research Project
From Fall 2000 to Spring 2001, a group of eight Tennessee adult educators participated in an LD Action Research Project, sponsored by CLS, focusing on assisting students with learning disabilities. They studied LD-appropriate instruction, practiced methodology with each other and their students, and developed ways of building self-advocacy in their students. The teachers in the LD Action Research Project used the principles of Bridges to Practice, a series of guidebooks produced by the National Institute for Literacy, as their foundation. Excerpts of their work, in addition to experiences and writings from three LD specialists, comprise the text of Keys to Effective LD Teaching Practice.
Acknowledgements

Thanks to Mary Beth Bingman and Jean Stephens at the Center for Literacy Studies, University of Tennessee, for their guidance and support throughout this project.

Thanks to the following for their work on the resource book: Charlotte Duncan, for proofreading the final text; Kim Chaney-Bay, for editorial assistance; Mary Revenig, for graphic design and layout; and Amanda Keller, Carol Simmons, and Glenda Turner for draft reviews.

Contributors

Editor

Margaret Horne Lindop is a Senior Research Associate at the UT Center for Literacy Studies. Her work is focused on learning disabilities, both in professional development with Tennessee teachers and as coordinator of LINCS Literacy and Learning Disabilities Special Collection for the National Institute for Literacy. Ms. Lindop has been an educator for 30 years, more than half of which have been in adult education. Her master’s degree is in Adult Education/Educational Psychology with an emphasis on learning disabilities. She is a member of the Bridges to Practice training team for Tennessee.

Consultants

Dr. Sherry Mee Bell is an assistant professor of special education at the University of Tennessee. With more than 20 years’ practical experience as a special education teacher, school psychologist, and instructional consultant, her scholarly interests include assessment and treatment of learning disabilities, particularly dyslexia; motivation; and action research in education. Dr. Bell contributed the resource guide, explaining psychological evaluations, at the end of Chapter 2. She shows the connections between a person’s strengths and weaknesses and the strategies and accommodations that will improve chances for success.

Amanda Keller is an adult education instructor in Blount County, Tennessee. She has been involved in adult education for 11 years and has experience in basic literacy, GED, workplace training, and Families First instruction. She has completed various training programs in teaching adults with learning disabilities and is a member of the Bridges to Practice training team for Tennessee. Ms. Keller worked with the action research project as a consultant and workshop leader. She has developed lessons and approaches that incorporate Bridges to Practice guidebooks’ instructional frameworks. She uses them with her own students and shares many of them in this publication.

Action Research Grant

Teacher Participants

Brenda Burgess is the adult education Families First teacher in Bledsoe County. She has a degree in special education, a visually impaired certification, and a degree in interpreting for the deaf. Ms. Burgess taught in special education for several years and in adult education for the last 10 years.

“I have worked with several students who were in special education and, because of learning problems, they just dropped out of school. They have very low self-esteem; a short attention span; and difficulties in recalling details, problem solving, memorization, and reading simple directions.”
Carol Clamon is the Families First teacher at Oakland Adult Learning Center in Jefferson County. She has 10 years of teaching experience at the high school level and has taught adult education and Families First for the last 6 years.

“I’ve seen so many adults enter the program with learning problems. They never learned to read very well, or they have never been able to remember math facts. I wanted to join the LD project to learn teaching techniques that are effective with learning disabled adults.”

Dana Clark is the adult basic education manager at the Bethlehem Centers of Nashville/Davidson County (BCN). A former high school English teacher, Ms. Clark has taught adult basic education to Families First participants for more than a year.

“All of my students enter BCN below sixth-grade level in reading and math and many appear to have learning disabilities. Watching so many students struggle with basic skills and wanting to help them prompted me to be a part of the LD project.”

Charline Feuchtinger has taught adult education to Families First clients in Lincoln County for more than 3 years.

“During this time, I have experienced the joy and thrill that comes from having more than 30 of my students graduate from the GED program and, and students currently are attending Motlow State Community College. On the other hand, I feel the pain of those who, in spite of all their efforts, struggle with basic reading, math, and problem-solving skills. By participating in the LD Action Research Project, I am equipping myself with the resources and teaching techniques to effectively instruct, encourage, and empower my students in becoming successful in life.”

Carol Simmons has been an adult education teacher in Dickson County for 4 years, with 3 of the 4 as the Families First teacher.

“I am a high school dropout who earned a GED at age 30. I then enrolled in college and graduated with a BS in elementary education. I first became interested in learning disabilities when my son was in school and I was trying to find a way to help him with his difficulties. Later, when I started teaching adult education, I received a first-hand look at the results of those with learning disabilities who had "fallen through the cracks" while in elementary and high school. I became involved with the Learning Disability Action Research Grant because I wanted to help students with LD reach their fullest potential.”

Joe Spoon teaches Adult Education programs for Workforce Connections in Knoxville.

“I helped develop educational goals geared to enrich my students’ lives. Many of them moved on to become ‘handi-capable’ in many areas that affected everyday living. When the Families First program began in Tennessee, I became part of the Knoxville Families First staff. I look back sometimes to the many struggles I have had as a handicapped individual. I realize that any success I may claim is because some caring person was there when I needed help. When I am asked, 'Why do you care?' I say, 'I've been there.' That's why I'm here.”

Glenda Turner has been teaching in the Blount County adult education program for 15 years. She has been an instructor with the Families First program since it began in the fall of 1997. Ms. Turner retired from the Blount County School System with 30 years’ teaching experience, 25 of which were as a special education instructor.

“I enjoy the flexibility of teaching adults in the Families First program, and I find it challenging to help them learn to attain their goals of employment and self-sufficiency.”

Rebekah White-Williams is the Families First instructor and assistant program director for Crockett County adult education program. During her 4 1/2 years in Crockett County, she has taught adult education, Families First, and GED +2.

“Most of my students from the Families First program entered the class with an average grade level of 4.5. Because of this, I became interested in how to develop better learning strategies. I felt the need to do whatever I could for these students, just as someone had helped me with my learning difficulties when I was in college working on my bachelor’s degree.”
Introduction

Building on the Foundation of *Bridges to Practice*

The National Institute for Literacy (NIFL) sponsored *Bridges to Practice: A Research-Based Guide for Literacy Practitioners Serving Adults With Learning Disabilities* (National ALLD Center, 1998), a comprehensive five-volume guide on how to identify and better serve adults with learning disabilities. The publication was part of a larger initiative aimed at bringing about systemic change in the area of learning disabilities (LD) and adult education. This valuable resource sets out a framework through which the adult education (AE) field can improve services in its programs for the many adults who struggle with learning disabilities (LD).

This resource book, *Keys to Effective LD Teaching Practice*, while not a direct product of *Bridges to Practice*, builds on its foundation. Two of the contributors are *Bridges-to-Practice* trained adult educators. Working with an action research group of Tennessee teachers (referred to as the LD Action Research Project), the editor has built a collection of ideas, activities, and lessons—based on the principles of *Bridges to Practice*—that adult educators can use as they start “crossing bridges” to effective practice with their students who have LD.

Professional Development Moments

Throughout the sections outlined above, this symbol (\(\text{\textcircled{\text{\textup{}}}\text{\textcircled{\text{\textup{}}}\text{\textcircled{\text{\textup{}}}}}}\)) suggests that the reader stop, think, talk with a colleague, or write down thoughts. It is hoped that the reader will interact with other practitioners, the LD Action Research Project teachers, and the ideas in this book in a way that is helpful to her own professional development.
CHAPTER 1
Preparing to Serve Adults With Learning Disabilities

Introduction
Adult educators are increasingly aware that learning disabilities are present but often undiagnosed barriers to success among adult learners, including those in welfare-reform programs. Learning disabilities may be present, along with other barriers and, therefore, harder to identify. With this growing awareness has come eagerness to recognize the signs of LD and to develop more effective teaching/learning practices.

Sorting out the puzzle of LD and other barriers to learning is not easy. A variety of things can stand in the way of success for adults who are undereducated. For one reason or another, many have experienced failure and find it hard to believe they can succeed. In a chicken-and-egg dynamic that is hard to sort through, their history of failure may be tangled up with substance abuse, family violence, employment difficulties, depression, poor health, and the stresses of poverty itself. If a brain-based learning disability is present as well, it may never have been diagnosed, especially for women who, in their K–12 school years, were more apt to fade into the woodwork than act out, as their male counterparts often did.

This chapter reviews the changing perception of learning disabilities during the relatively short history of the field. Current understanding of LD as a brain-based condition is addressed through the definition crafted by the National Joint Committee on Learning Disabilities (NJCLD) which is explained, piece by piece. Later in the chapter, the action research teachers share their understanding of and beliefs about LD. The chapter concludes with an awareness activity helpful to understanding the experience of a person with learning disabilities.
Understanding Learning Disabilities: 
A Historical Perspective

In the last half century, our understanding of learning disabilities has grown enormously. Although there are earlier references to conditions that may have been LD, according to Joan Harwell (2001), it was not until the late 1930s that there was any real recognition of the condition now known as learning disability. Samuel Orton, a neuropathologist, observed in children a reading problem characterized by the reversal of letters and syllables. He also made note of the fact that this reading disability seemed to be mild in some children and quite severe in others.

From that time until the 1960s, Harwell (2001) credits Orton and others (Gillingham, Stillman, Fernald, Spalding) with working hard to develop teaching methods that would be effective for children who could not learn to read by the sight methods in vogue at the time. In spite of their efforts, most children who struggled in school were assumed to be ‘slow learners.’ They were either placed in a class for the mentally retarded or they received no help at all.

Harwell (2001) described how things began to change in the 1960s. Children who were thought to be retarded or had been designated minimally brain damaged showed normal intelligence when they were tested by nonverbal methods. Parents began insisting on better services for their children. The term learning disabled replaced earlier terms. As the field became more informed, attempts were made to classify learning disabilities into subtypes, such as dyslexia (reading disability), dyscalculia (arithmetic disability), and dysgraphia (writing disability).

Historically, there has been a lack of consensus in the field of learning disabilities about etiology and treatment. This has made it difficult to arrive at a definition with broad agreement. There is now, however, a growing consensus that learning disabilities are a result of underlying, brain-based conditions.

In recent years, the perception of adults with learning disabilities has changed, and laws have been enacted to level the playing field for those with learning disabilities, including the 1997 Individuals With Disabilities Act, the Rehabilitation Act of 1973, and the Americans with Disabilities Act (ADA).
Defining Learning Disabilities

Although there are a number of definitions of LD, the following one, crafted by the National Joint Committee on Learning Disabilities, reflects current knowledge and is used in the *Bridges to Practice* guidebooks (*Bridges to Practice, Guidebook 1*, pp. 13-14).

Learning disabilities is a general term that refers to 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 life span. Problems in self-regulatory behaviors, social perception, and social interaction may exist with learning disabilities but do not by themselves constitute a learning disability. Although learning disabilities may occur concomitantly with other handicapping conditions (for example, sensory impairment, mental retardation, serious emotional disturbance) or with extrinsic influences (such as cultural differences, insufficient or inappropriate instruction) they are not the results of those conditions or influences.

The following table from *Bridges to Practice, Guidebook 1* (pp. 13-14) applies this definition to adults.

**NJCLD Definition With Application to Adults**

<table>
<thead>
<tr>
<th>Learning Disabilities Defined</th>
<th>Application to Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning disabilities is a general term that refers to a heterogeneous group of disorders</td>
<td>There is <em>neither one type of learning disability nor one profile for adults with learning disabilities</em>. There are many different <em>patterns of difficulties</em>. For example, one adult may have a serious reading disability, while another may be able to read adequately but not be able to communicate thoughts in writing.</td>
</tr>
<tr>
<td>manifested by significant difficulties</td>
<td>All individuals have strengths and weaknesses. <em>Adults with learning disabilities have serious problems that affect some major functions in the home, community, or the workplace.</em> For example, an adult may not be able to work at a preferred job due to lack of literacy skills related to learning disabilities.</td>
</tr>
<tr>
<td>in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities.</td>
<td>Learning disabilities are <em>specific in nature</em>. Learning problems encompass one or more ability areas (e.g., reading or math) but <em>do not necessarily include all ability areas. They do not represent simply a delay in development.</em></td>
</tr>
<tr>
<td><strong>Learning Disabilities Defined</strong></td>
<td><strong>Application to Adults</strong></td>
</tr>
<tr>
<td>---------------------------------</td>
<td>--------------------------</td>
</tr>
</tbody>
</table>
| These disorders are intrinsic to the individual, and presumed to be due to central nervous system dysfunction, and may occur across the life span. | Learning disabilities are part of a person's neurological make-up. They are not eliminated by changes in the environment such as increased exposure to literacy events. *Although a person can learn to deal effectively with a learning disability, the learning disability does not go away.*  
Although most adults with learning disabilities will not have a medical diagnosis of a neurological disorder, the assumption is that there is some sort of difference or difficulty in how the brain works. Current research is shedding greater light on this area.  
Learning disabilities may be uncovered at different stages of a person's life, depending on many factors. Some factors include severity of the disorder; academic, vocational, and social-setting demands; and educators' knowledge of learning disabilities. The symptoms change over time so that a learning disability in a 7-year-old child looks different from that in the same person as an adult.  
Some adults will have difficulty in self-control, perceiving social situations appropriately, and getting along with other people.  
The problems described in self-regulation, social perception, and interaction, although often present in adults with learning disabilities, also occur in people with other disabilities as well. There are many reasons for these types of problems other than underlying learning disabilities.  
A learning disability may be present with other disorders, but these conditions are not the cause of the learning disability. For example, an adult may have a hearing loss along with a learning disability, but the hearing loss is not the cause of the learning disability. Also, learning disabilities are not related to low intelligence. In fact, most people with learning disabilities are average or above average in intelligence, but the impact of the disability may impair their ability to function well in school or in the workplace.  
Although learning disabilities are not the result of inadequate schooling or opportunity to learn, they are often exacerbated by these factors. For example, since individuals with learning disabilities frequently have fewer opportunities to learn, they tend to be challenged less by their teachers and parents. Therefore, by the time individuals with learning disabilities become adults, they are further behind than their learning disabilities would predict. |
| Problems in self-regulatory behaviors, social perception, and social interaction may exist with learning disabilities but do not by themselves constitute a learning disability. |  |
Bridges to Practice suggests that adults with learning disabilities can be successful when their disabilities are recognized and dealt with appropriately. Disabilities manifest themselves in several ways:

- reading difficulties
- writing difficulties
- listening difficulties
- speaking difficulties
- mathematics difficulties
- thinking difficulties.

While there is acknowledgment that learning disabilities are life long, there is also the evidence that educational interventions are helpful both in increasing skills and in helping people make accommodations.

**Tennessee Teachers Share Their Understandings About Learning Disabilities**

When life’s struggles are present along with potential LD, how do teachers know what’s creating the problem with learning? If a teacher or learner suspects a learning disability is present, what steps should be taken, by whom, and how? What teaching strategies will help this person learn? If a student is diagnosed as having LD through a psychological evaluation, will the report suggest strategies and accommodations? Are these different from the ones being used now? Might these strategies be helpful to the entire class or will they only help someone who has LD? These were the kinds of questions asked by the teachers in the LD Action Research Project.

Before this action research project, AE Families First teachers had participated in professional development activities to help them understand the nature of learning disabilities and the legal issues involved with accommodations in education and on the job. In addition to participating in LD-awareness training, each person brought experiences and a perspective to the project that enriched the entire group’s understanding of LD. Glenda Turner and Brenda Burgess had taught in a variety of special education settings before coming to adult education. Joe Spoon has visual impairment and understands the critical role of self-advocacy. Carol Clamon, through her high school teaching experience, brought the perspective of teaching young adults. Rebekah White-
Williams has lived with learning difficulties herself and shared with the group many of the feelings she’s struggled with through the years. Charline Feuchtinger has the heart and attitude of an advocate who says nothing is impossible. As a recent teacher education graduate, Dana Clark has a firm grounding in best practices of teaching, particularly direct instruction. Carol Simmons has seen learning difficulties as a parent helping her son and with her AE students who “fell through the cracks.” She has also tried to incorporate multiple intelligences into her teaching, thereby strengthening the focus on abilities. As a group, they brought understanding, great desire to learn more, and a lot of important questions.

Beliefs About Learning Disabilities
Based on their study and experience, the LD Action Research Project teachers developed the following beliefs about learning disabilities:

• Learning disabilities are brain-based, life-long conditions that affect persons in every role of their lives—as learner, worker, family member, friend, and community member.

• People with learning disabilities also have great Abilities. A person may have learning disabilities, but he or she is not defined by them. As much effort needs to be spent on discovering abilities as on learning to accommodate disabilities.

• For persons with learning disabilities, a position of strength (self-advocacy, understanding, and self-acceptance) rather than weakness is a key factor in successfully living with LD.

• Adult education programs have a critical role in helping adults with learning disabilities understand their disabilities, advocate for workable accommodations, increase their skills, and make the most of their abilities.

Understanding the Experience of Adults With LD
To prepare ourselves to serve adults with learning disabilities, we need to learn—and continue to learn—about every aspect of LD. Not only do we need to learn definitions, characteristics, the latest research, and legal issues, we also need to understand the experience of someone with LD—to the degree that we can.
Awareness Activity: Making a Name Card

Here is an activity you and your students might do to simulate the experience of struggling with a processing problem (White, 1999).

Making a Name Card

An especially effective way to do this activity is to simply suggest that it would be helpful if each person had a stand-up name card in front of them. Do not mention that this might have anything to do with learning disabilities.

Demonstrate the folding and check to make sure everyone has folded correctly. Then, placing your card on a wall or any vertical surface, model picking up your pencil in the hand you don’t normally use, starting on the right and writing (or printing) upside down.

Instructions (for teacher to say to learner):

→ Fold a piece of paper in half and place on writing surface, folded edge toward you (demonstrate).

→ Pick up your pen or pencil with the hand you don’t normally use for writing.

→ Write or print your name Going from right to left and upside down.

Do the activity: As participants do this, circulate, making sure directions are followed.

Follow-up discussion:

→ What was that (experience) like for you? (hard? easy? awkward? Sometimes people say, “I had to think about every movement. I could almost feel my brain trying to tell my hand what to do.”)

→ How did you feel as you were doing it? (People sometimes say “frustrated,” “embarrassed,” “stupid,” “puzzled.”)

→ Why is this so hard? How do you suppose you would have felt if you had been the only person at your table having difficulty with this task? Often responses include “really stupid,” “embarrassed.” (This should help raise our awareness about the way a person with LD may feel.)

→ Why do you suppose it was difficult? (People may not have any idea, but, basically, it’s because we’re trying to process information from our brain in a way that’s anything but automatic.)

→ This is similar—in a way—to what it’s like to try to process information when there’s a processing difficulty or disability (called a learning disability). This can happen with any phase of processing information.
The next chapter will examine the assessment process, including screening, teacher observation, and learner self-analysis. A separate resource, *Psychoeducational Assessment* by Dr. Sherry Mee Bell, explaining diagnostic assessment is included at the end of Chapter 2.

Before you go to the next chapter, take a few minutes and do two things:

- Write down your thoughts and questions regarding learning disabilities.
- Look again at the definition of learning disabilities. Find any points that are new or surprising to you and mark them. Do they shed any light on students you’ve taught?
CHAPTER 2
The Assessment Process

Introduction
In this chapter, the role of assessment in the educational plans of an adult learner with learning disabilities is discussed. The assessment process begins with screening and may also include diagnostic testing; therefore, it is important for teachers and learners alike to be clear on the difference between screening and diagnosis. LD screening answers the question, “Should this person be referred for diagnosis of a learning disability?” LD diagnostic testing answers the question, “Does this person have a learning disability?” Screening can be done by the teacher; diagnostic testing must be done by a licensed psychologist.

The chapter begins with a summary of the discussion on the overall assessment process discussed in Bridges to Practice, Guidebook 2. The chapter then shifts to the LD Action Research Project with a focus on screening, particularly observation screening, as a part of the assessment process for which teachers are particularly well equipped.

The Assessment Process
In Bridges to Practice, Guidebook 2, the assessment process is thoroughly reviewed and described as four phases:

- **Intake Phase:** Information about the learner is collected, and the need for such information is discussed with the learner. In this informal quest for information, the practitioner and learner become acquainted and the learner’s needs and goals begin to emerge.
- **Planning Phase:** If the learner is to remain motivated, the information gathered in the Intake Phase (the learner’s needs, goals, strengths, and ability levels) must be well matched with the lesson content and structure of instruction.
- **Instruction Phase:** A great deal of information about a learner can be gained in this phase during which practitioner and learner interact in the instructional setting. An observant practitioner conducts ongoing assessments, including informal ones, during the course of daily interactions.
• **Review and Evaluation Phase:** Review and evaluation includes both informal and formal tools of assessment. Standardized tests will show areas of improvement and areas still needing work but informal assessments help to pinpoint such areas, as well.

Also included in the assessment process are screening instruments for learning disabilities. As noted in the introduction to this chapter, screening and diagnostic testing are not synonymous. Screening simply suggests which learners are candidates for diagnostic testing. *Bridges to Practice, Guidebook 2,* discusses the appropriate times for screening and testing and the advantages and disadvantages of obtaining an official diagnosis of a learning disability.

**The Screening Process**
The screening process defined in *Bridges to Practice* is loosely outlined below.

- Gather information about the learner.
- Review the observations with the learner.
- Determine how the learner feels about additional screening.
- Select a screening instrument.
- Obtain informed consent.
- Conduct the screening.
- Prepare a summary of the results of the screening to be discussed with the learner. At this point, decide with the learner the next course of action.

**Observation Screening: A Key Piece in a Teacher-Learner Partnership**
Screening may take a variety of forms. In some situations, people are screened for LD with a screening instrument when they enter a program. As part of an intake process, it may be quite short but highly predictive of LD.

The action research group tried out a screening process that, instead of being a quick indicator as mentioned above, is a collection of observations during the teaching/learning process. This observational screening has four components:

1. **Teacher Observation Screening,** preferably done over a period of
several weeks as the teacher and learner start to work together

2. **Learner Input**, in which a learner gives input on her own learning strengths and struggles

3. **Teacher-Learner Conference**, during which they compare observations and plan the learner’s instruction and adaptations

4. **Interpretation of Checklists**

1. **Teacher Observation Screening**

   *Screening for Adults with Learning Disabilities: The Role of the Practitioner in the Process* (Riviere, 1998) is an example of a user-friendly overview of screening for teachers to use over time. Written in 1998 by NIFL’s Center for Adult Literacy and Learning Disabilities (ALLD), it simply states that “Screening is an ongoing process of gathering pertinent information about the individual with a suspected learning disability (p. 2).” The checklist covers three areas as described below. As you move through the screening process, you and your student will gain insight into the kinds of things that are obstacles for her and ways of learning that work well for her. As you work through the suggestions, look for areas in which you, your student, or both have checked a number of items.

   - **Vision/Hearing and/or Auditory/Visual Processing Problems.** Items noted in this section may be due to physical problems, learning disabilities, or both. Your careful observation will assist in determining next steps for someone with these conditions and actions.

   - **Academic Performance: Reading, Expressive Language, Math.** Several check-marks in any of these areas are “red flags” that indicate a possible learning disability in that area. This is not a diagnosis; it is an indication that the person may need a diagnostic evaluation.

   - **Behaviors/Psychological Manifestations (Attention, Organization, Social, General).** If behaviors in attention, organization, or social interactions are observed over a period of time, they may be indicators of possible learning disabilities. As a teacher, you are making observations that can support a referral for diagnostic evaluation. If an adult learner makes the decision to do that, this kind of documentation can provide helpful information.

   (See Appendix A for a complete, reproducible copy of the *Screening for Adults With Learning Disabilities: The Role of the Practitioner in the Process* (Riviere, 1998.)
2. Learner Input
Self-knowledge on the part of the learner is an important component of the assessment process. Adults know a lot about how they learn best and what stands in their way. They may, however, need someone—often, the teacher—to ask the questions that help them step outside themselves and observe those kinds of things. The development of metacognitive skills (learning how to learn) and attitudes of self-understanding and self-advocacy are critical to success in many areas, so even in this assessment process, you are teaching needed skills. A document below, “Analyzing My Learning: Strengths and Struggles,” is an effective tool to elicit learner input.

“Analyzing My Learning: Strengths and Struggles” is an adapted version of Screening for Adults with Learning Disabilities: The Role of the Practitioner in the Process (described above), written in first person and somewhat simplified. It has been adapted for use as a tool for developing learner self-knowledge and, hence, self-advocacy.
(See Appendix B for a complete, reproducible copy of “Analyzing My Learning: Strengths and Struggles.”)

3. Teacher-Learner Conference
The conference should be done one-on-one if at all possible. Possible questions and openers include:
• “You checked (or wrote about) ____. Could you say a little more about that?”
• “I noticed ____. Have you ever noticed that?” or “What are your thoughts about that?”

For several reasons, it is important to do the observational screening in partnership with the learner.
• To provide documentation for possible referral for diagnosis
• To inform instruction and adaptations now
• To gain information from the adult learner who is a lifelong source of how she processes
• To start building self-understanding and self-advocacy in the learner
4. Interpreting the Checklists

Note: “The checklists” refer to *Screening for Adults with Learning Disabilities: The Role of the Practitioner in the Process* and “Analyzing My Learning: Strengths and Struggles.” The categories use the exact category titles from “Analyzing My Learning: Strengths and Struggles.”

Health/Medical/Family Factors that Might Affect My Learning

Items checked in this area are not necessarily indicators of learning disabilities, nor do they rule them out. They do point to other possible reasons for struggles in learning that may need to be addressed. If screening moves on to diagnostic assessment, this documentation may assist in the evaluation. If no items are checked here and the student is struggling with learning, this lends weight to the possibility of a learning disability. Because learning disabilities are often genetic, a checkmark under the family factors section may be significant. If a student marks this one, ask her to tell you more. For example, “What kind of problems did your dad (brother, sister, mother) have with reading (math, spelling)?”

Vision/Hearing

Items noted in this section may be due to physical causes or they may be processing problems. Arrange hearing and vision screenings if at all possible. If you observe several vision-related items, talk with the person about a vision appointment to determine if there are vision problems interfering with reading (convergence and other eye-tracking problems as well as acuity). Also try different lighting (lamps instead of florescent light) and colored overlays to reduce glare on white paper. If physical problems are ruled out, problems in this area may indicate learning disabilities.

Reading, Writing and Spelling, and Math

Several check marks in any of these areas are red flags that indicate a possible learning disability. Pay particular attention if one or more areas received a number of check marks, while another area received none. This inconsistent picture is, itself, a red flag of possible LD. Remember, this process is not a diagnosis; it is an indication that the person may need a diagnostic evaluation.

Note regarding oral language: This particular screening checklist does not include oral language irregularities, but you may observe them.
While many are simply learned language patterns, some may indicate learning disabilities. If you observe the following, please make a note on your check list since they can indicate learning disabilities:

- Difficulty pronouncing multisyllabic words: leaving out a syllable, mixing up the order of syllables (e.g., vin-ge-nar for vinegar, cat-i-pal for capital).
- Difficulty getting a thought into spoken language. Frustration and a few key phrases may be a tip off: “Oh, you know—I mean.—Oh, I can’t explain it!”

**Note regarding students whose native language is not English: ESOL students.**

It is especially difficult to determine if an ESOL student also has learning disabilities. Please see the Bibliography for resources concerning this complex area.

**Other Factors that Can Affect Learning**

If behaviors in attention, organization, or social interactions are observed over a period of time, they may be indicators of learning disabilities or related conditions. As a teacher, you are making observations that can support a referral for diagnostic evaluation. If an adult learner makes the decision to do that, this kind of documentation can provide helpful information.

**Variations on the Use of Observational Screening: The Tennessee Teachers’ Experiences**

The teacher participants in the LD Action Research Project tried a number of approaches to observational screening. Those shared below are all variations on the four components. Some of the teachers focus on one component, such as Learner Input, while others use a combination.

**Example One: Glenda Turner’s One-to-One Intake Interview Approach**

“When I get a new student in my Families First class, I plan for about 30 minutes of uninterrupted time (if at all possible) with this student. I try to do this away from the other students, permitting us to have a private conversation. I want the student to feel comfortable with me and to have the opportunity to ask questions. I have each student complete an interest inventory and “Analyzing My Learning.” I explain that, if some of the questions are too personal, it is not necessary to answer them. I ask questions about their children, hobbies, jobs they have had, what they
liked about school, and what was hard about school. Questions about school help me determine if there might be a learning disability.

After discussing the inventory, I go over test scores. This is when I go over the bonus system and explain how they can earn money with good attendance, good attitude, and good progress. The next step is choosing books to use. I usually give the student three or four different books. I explain that some are easier, some have more pictures, and so forth. I leave them to look at the books and make their choices. This is just one step in taking charge of their education.

I talk with each student about the importance of organizing her materials. I give each student a folder for each subject. I watch the student for several days, and, if organization continues to be a problem, we discuss ways to be better organized. I provide a notebook with dividers, a small zippered pouch that can be fastened in the notebook. The pouch contains pencils, a small sharpener, and a highlighter. They choose the color and choosing a pleasant color can make a difference. I encourage them to make a calendar on the computer to keep in the notebook. Many learning disabled students have difficulties with organization and this method seems to help.

Giving a new student some of your time on the first day can help. If she leaves with the feeling—‘This teacher cares, I am involved with making choices, the teacher understands me, and I have an opportunity to earn bonus money if I do my part,’ the student will usually return and return with a positive attitude about the program.”

The first part of the student’s self-report/analysis is critically important, yet often difficult for adults who are more familiar with their struggles than their strengths. Carol Clamon could do this part at any time with her students, as part of the “Analyzing My Learning: Strengths and Struggles” or as a separate activity.

Example Two: Carol Clamon’s Approach – Using Writing to Help Students Recognize Their Strengths

“I read Chicken Soup at Work to the class. I read out loud, and then we would discuss. They did a lot of journal writing where I gave them a sentence stem and they completed it. Here are some of the ones I used:

- The hardest thing I ever did ___________.
- The best thing I ever did ___________.
- My best work experience ___________.
- The things I do best ___________.
- I am very proud of ___________.
- I am most creative ___________.
- I am most effective when ___________.
- My uniqueness is ___________.
- What I like most about myself is ___________.
- A good example of my common sense is ___________.
- What I like most about myself is ___________.

...
Example Three: Margaret Lindop’s Approach – Group Activity Woven Into Regular Class Activities

“I did this as a group activity, finishing with individual conference sessions. Each step can be done on a separate day, weaving in basic skills and work preparation.

For a week or so before a required testing period, I would weave it into instructional activities. I used a “discuss-write-read” model with each day’s step, mind-mapping the discussion, and leading into writing. My hope was to place their required testing (ABLE at the time) in a bigger context of self-assessment and to do this kind of learner observation/analysis at the same time.

When I did this with my students, I used the conversation below to introduce each session.”

Using “Analyzing My Learning: Strengths and Struggles” in a Group Setting

Day 1: Strengths/Abilities/Interests
Periodically you take a test (e.g., TABE) to measure how much progress you’ve made. But, is that the only way to show what you’ve learned? (Wait for response.) How do you know you’ve made progress with your education? (Get responses.)

You’re adults and you know yourself pretty well. Have you ever tried to analyze your own strengths or abilities and, also, the kinds of things you struggle with? We all have both strengths and struggles, don’t we?

We’re actually going to try that in the next few days. It’s a very helpful thing to know your own strengths and struggles, whether it’s in your family, in your neighborhood, or at work. Today we’re going to look at our strong points, our abilities and our talents.

(Hand out first page, read each part, assisting with writing as needed.)

Day 2: Health/Medical/Family factors that might affect my learning
Yesterday we thought about our strengths. Today, let’s look at health or medical factors, including hearing and vision, that can affect our ability to learn. As we read each item, check it if you think it might be keeping you from making as much progress as you would like to make.

(Teacher reads each item out loud, learners following along, marking. After this section is completed, you might have open discussion that could lead to writing. You could develop this into an essay writing exercise if you wish.)

Day 3: Reading, Writing and Spelling, and Math
Yesterday we thought about a lot of things that can be barriers to learning. There’s another kind of barrier that you might not think about. Even though we’re quite intelligent, we can have a kind of problem with reading, writing, spelling, math, even thinking or organizing. These may be learning disabilities. Do any of you know that term? Do you know what it means? (Get their responses first. This is an opportune time to try to dispel myths about LD. Many people think it means the same thing as mental retardation although it is completely different. To demonstrate, you might want to do the name card activity from Chapter 1. It’s helpful to talk about these as information processing problems. Discussion and writing could follow.)

Example Three: Margaret Lindop’s Approach – Group Activity Woven Into Regular Class Activities
Today we’re going to talk about specific problems you may run into when you read, write, spell, or do math. Check anything that has been a problem for you. We’ll take a minute at the bottom of each page where you can explain anything else.

Day 4: Other Factors That Can Affect Learning
We’ve been thinking about all the different things that can get in the way when we’re trying to learn. Today we’re going to think about some factors you may not have thought of before. They have to do with how we pay attention, organize ourselves, and relate to other people. Check anything that you have experienced.

Day 5: REVIEW
Over the last few days we’ve been thinking about things that can get in the way of our learning. Let’s stop and remember those kinds of things. What are some of those? (As learners respond, start to create a mind map similar to this on the board. Mind mapping is variously called cognitive mapping or webbing.)

(After the discussion and mind-mapping, call attention to the structure of the ideas.) This is one way to do the prewriting for an essay, isn’t it?

Pick out three things that you think might apply to you or that you think are important and use those as your main points in your essay. Remember to give examples of each. (Adjust this to your group. Some people may write just a couple of sentences, but everyone should be encouraged to write.)

Example Four: Joe Spoon’s Story – Weaving Together Observation, Trial Teaching, and Planning
In this account, Joe talks about his work with Sandy, an adult education student. He includes observation and trial teaching to plan with her. As Joe describes his “detective” work with Sandy’s reading difficulty, we see a skillful example of the try out and observe process of trial or diagnostic teaching.

“As in my opinion, it is the goal of every adult educator to provide their adult learners with the keys to enable those learners to open all the doors necessary for completion of their chosen goals. There is one particular skill that can serve to open many doors. That skill is reading. Reading can put any learner at the doorstep of numerous opportunities. Many students come to our adult education classes with all their reading skills intact. After a short period of review, these students are ready to move on. There are those students, however, who continually struggle with their reading abili-
ties. This causes problems for the student and for the teacher. As instructors, we need to realize that perhaps the student who does not read well may have a specific learning disability. How do we as adult educators identify and accommodate suspected learning disabilities?

At Workforce Connections here in Knoxville, Tennessee, students are observed from the very moment they report for orientation for signs that a learning disability may exist. Each student's folder contains a screening instrument for learning disabilities. This form allows the instructor to observe and record behaviors that could signal a specific problem with learning. Another important part of each student's file is "Analyzing My Learning." This instrument allows the student to develop a sort of self-image of learning strengths and weaknesses. Using data from these two sources, our teachers can, usually within the first month of attendance, make informed decisions concerning the educational approach to use with any one student. I would like to present an account of one student who, with her teacher's efforts and her own efforts toward self-help, is continuing to improve and succeed."

**Sandy**

“From the beginning, I observed that Sandy was having great difficulties with reading. I noticed a pattern of very low scores when she responded to questions from the reading portions of GED practice material. *Just what was her problem?* I developed a strategy to help me understand how I could help. I wanted to know if Sandy was decoding all the words she read. *Was she assigning the correct meaning to these words?* I asked Sandy to begin to read aloud to me. She was able to verbalize most words. I asked her questions so I could determine her ability to comprehend what she had read. She really struggled to choose the correct response. 'I'm stupid,' she would say. 'I'll never be able to pass that blasted GED test!' I encouraged her to not give up. I wanted her to try a few things that I thought would help. Perhaps she was trying to read and remember too much at one time. *Was her ability to remember being pushed past its limits?* We tried shorter passages. I asked questions about these passages. Her responses were much more accurate than before. Closely spaced reviews of material seemed to help Sandy's retention. I felt that we were off and running. *I was excited!* I tried to relate many things we read to real life situations. The more she could relate, the more she remembered. *Pictures of events or similar events also improved her retention skills.*"
Example Five: Amanda Keller’s Experience – A Learner’s Knowledge and Self-Advocacy

“I asked Michael to tell me some things that work well for him as a student. This is a list of his answers:

• Working in a group, time to talk and help each other.
• Teachers who LISTEN to what I have to say about what is going on with me in class.
• Classmates helping each other.
• Make class fun and not dull. Most of us work a full-time job all day.
• Get the lessons down to everyday life.
• Open time to talk about the lessons in class before we take it home to do on our own.
• Let us give our opinions about the lessons and talk about better ways to change the lessons and help each other.

• I need more instruction in reading and writing, and not as much in math.
• Watch VCR tapes at home on reading and math.
• A lot of class instruction on what we are going to do with our lesson before we take it home to do it.

In addition to these things, some of the things I have observed Michael using are

• Highlighters to highlight important information in the lesson
• Yellow paper
• A typing stand when he reads to reduce the strain on his neck
• A spelling checker (although he relies on it very little now)."

Let's say you have kept an observation checklist, and you and your student have talked about her learning strengths and struggles. You have tried to help her, along with your whole class, to understand the nature of LD as a possible obstacle in learning. There are a number of red flags for LD, and your student has decided that she wants diagnostic testing. (Note: She may, however, decide against this, and that is her decision.) You make the referral, preparing and supporting her throughout the process.

If you’re like many other teachers, you wish you understood the diagnostic testing process better. You’d like to be better able to prepare your students and you’d like to know how to really understand the psychological reports. What specific questions do you have?

In this next section on diagnostic testing, Dr. Sherry Mee Bell explains what is evaluated, what can be learned, and what the terms and scores mean. To illustrate, she has a case study of an adult diagnosed with LD. (See Appendix C for the case study.) Finally, she provides a useful reference list of each cognitive ability and recommendations for weakness in that area. What specific questions do you have?
Psychoeducational Assessment

How to Read, Understand, and Use Psychoeducational Reports

—by Dr. Sherry Mee Bell

This section is designed to enable teachers, counselors, and other professionals to read, understand, and apply the information available in psychoeducational reports. It will also sensitize teachers and counselors to the elements of a quality psychoeducational assessment, to be informed consumers with the ability to discriminate high-quality from low-quality reports, and to effectively use the information contained in thorough, quality assessments.

What is psychoeducational assessment?
Psychoeducational assessment provides estimates of the client’s intellectual, or cognitive, abilities and educational achievement levels. It also yields recommendations relevant for educational planning. Sources of assessment data include background information, educational history, and records and data from tests of intelligence and educational achievement and, at times, ratings tests of attention, behavior/emotions, and adaptive behavior. Psychoeducational assessment is designed to answer these questions: Does the client have a learning disability(ies)? Mental retardation? Attentional problems? What are the client’s academic and cognitive abilities, strengths, and weaknesses? What are appropriate educational recommendations? Accommodations? While learning, not emotional problems, is the focus of psychoeducational assessment, behavior/emotional and medical issues may need to be addressed in psychoeducational assessment. Compiling, integrating, and analyzing all assessment data yield educational and other relevant recommendations.

Though the formats of psychoeducational reports vary, most assessments include certain basic components. A psychoeducational report is a type of psychological report that focuses on assessment and interpretation of educationally related psychological tests and educational tests, including tests of intelligence and cognitive abilities, achievement tests, and tests of behavior and attention.

Intelligence Tests
Intelligence tests are commonly referred to as IQ tests. The most common IQ tests in current use are the Wechsler intelligence scales.
The Wechsler Adult Intelligence Scale-III (WAIS-III, 1997) was published by Psychological Corporation and is appropriate for ages 16-89. There are also child and preschool versions of the Wechsler scales. The Wechsler scales yield:

• **Full-scale intelligence quotient (IQ):** overall, composite measure of intelligence
• **Verbal IQ:** estimate of verbal comprehension and expression
• **Performance IQ:** estimate of visual-spatial reasoning.

**Supplementary Measures of Cognitive Abilities**

In addition, there are supplementary indexes that include measures of Verbal Comprehension, Perceptual Organization, Processing Speed (a measure of information-processing speed), and Working Memory (a measure of short-term memory and attention). Other adult intelligence scales include

• Stanford Binet Intelligence Scale, Fourth Edition, ages 3ñ23 (Riverside Publishing Company)
• Kaufman Adolescent and Adult Intelligence Test, ages 11ñ85 (American Guidance Service)
• Woodcock Johnson III (WJ-III) Tests of Cognitive Ability, ages 2ñ90 (Riverside Publishing Company)

The WJ-III is a newly published revision (2001) of the Woodcock Johnson – Revised (WJ-R) Tests of Cognitive Ability. It provides subtest and composite scores in several areas of cognitive ability. Some experts (see McGrew & Flanagan, 1998) consider the Woodcock-Johnson batteries to provide the most sound, research-based measures of intelligence and its components. Extensive factor analytic studies provide support for the ways in which the WJ-III defines and measures intelligence and its subcomponents. Though many state departments of education and other agencies do not yet recognize the WJ-III as an overall measure of IQ, many do recognize its value in providing supplemental information about important cognitive processing abilities, important in the diagnosis of learning disabilities. In addition to an overall IQ, the WJ-III (and WJ-R) yields measures of these abilities:

• **auditory processing:** discrimination, analysis, and synthesis of auditory stimuli; perception and discrimination of speech sounds despite interfering background noise
• **phonemic awareness**: manipulation, analysis, and synthesis of discrete sounds
• **visual processing**: (includes visual memory) perception, analysis, and synthesis of visual stimuli; storage and memory of visually presented stimuli; mental manipulation of visual patterns
• **long-term retrieval/memory**: storage and retention of information with ability to retrieve it at a later time
• **short-term memory**: processing and holding auditory information in awareness, then manipulating it within a few seconds
• **processing speed**: rapid cognitive processing without higher order thinking; attentiveness and fluency of simple information processing
• **verbal reasoning**: reasoning and comprehension when using language, verbal expression, vocabulary
• **general information/knowledge**: acquired knowledge, long-term memory
• **fluid reasoning**: inductive and deductive reasoning, problem solving, and concept formation on novel tasks that are nonverbal or limited in language demands
• **quantitative ability**: understanding mathematical concepts and relations.

Often implicated in learning disabilities are the areas of auditory processing, phonemic awareness, processing speed, short-term memory, and long-term retrieval. Because *traditional* IQ tests yield measures of only some of the above abilities, a good psychoeducational assessment should supplement a traditional IQ measure, such as the Wechsler or Binet, with additional measures from the Woodcock-Johnson or other batteries. This practice of using measures from different tests to assess the various areas of cognitive functioning is referred to as cross-battery assessment.

**Educational/Achievement Tests**

Educational testing, typically norm referenced achievement testing, is an important component of psychoeducational assessment. Assessment of achievement is an important part of assessment to rule out/diagnose learning disabilities and mental retardation. In addition, attention problems are often related to achievement problems. In most cases, poor achievement is what triggers the referral for assessment.

Learning disabilities are a pattern of scores representing unevenness in intellectual and academic abilities and skills. While all people have some...
strengths and weaknesses (e.g., stronger in quantitative than verbal skills), a person with learning disabilities has significant variability in both intellectual/cognitive abilities and related academic variability. The most common example is reading disabilities. These are usually associated with deficits in auditory processing, processing speed, and/or phonemic awareness; but the essential component is unexpectedly weak reading skills.

Mental retardation is typically defined as significantly subaverage intellectual/cognitive functioning (approximately two standard deviations below the mean) and significantly weak adaptive behavior. Though some states do not specify the levels of academic achievement required for someone to be identified as having mental retardation, it is understood that achievement is generally subaverage, as well.

Most individual norm-referenced achievement tests are designed for a wide age span (often preschool through high school) and cover the basic academic areas of reading, mathematics, and written language. Sometimes oral language is also assessed. Federal law defines the seven areas of learning disability as

- basic reading (includes phonetic decoding and sight word recognition)
- reading comprehension
- mathematics calculation
- mathematics reasoning
- written expression (includes basic writing skills, spelling, and composition)
- oral expression
- listening comprehension.

There are many individual achievement tests commercially available; however, only a few are normed on adult populations. Two of the most common in use with adults include:

- Woodcock Johnson-III Tests of Achievement (a revision of the WJ-R Tests of Achievement) ages 2-90, very comprehensive, provides multiple measures of reading, mathematics, written expression, and language (Riverside Publishing Company)
- Wide Range Achievement Test-III (WRAT-III) ages 5-75, screening test only, provides one measure each of reading, mathematics, and writing (Jastak).
In ruling out learning disabilities, it is important to thoroughly assess each area of suspected disability or difficulty. In addition, some assessment in the area(s) of suspected strength is useful in making comparisons and determining patterns of strength and weakness. Because reading disabilities are the most common type of learning disability and because problems in phonological skills are common in almost 90% of all reading disabilities (Lyon, 1996), it is critical to obtain a measure of phonetic decoding or word-attack skills. Of the tests listed above, only the WJ-III has a separate, strong measure of phonetic decoding. Screening tests, such as the WRAT-III, can be useful as screening instruments. However, brief screening measures should not be used to rule out learning disabilities because they do not provide thorough, comprehensive measures of the various components of reading, writing, and language.

**Measures of Adaptive Behavior**

State and federal laws require that a measure of adaptive behavior (i.e., domestic, daily living, social and functional academic and communication skills) must be obtained in making a diagnosis of mental retardation. Commonly used measures of adaptive behavior include:

- Vineland Scales of Adaptive Behavior, Survey Form and Expanded Form, newborn to age 18-11, with separate norms for adults with mental retardation (American Guidance Service)
- Scales of Independent Behavior-Revised, infants through adults, includes a long and a short form (Riverside Publishing Company).

**Tests and Ratings of Attention**

There is no single test for attention deficit hyperactivity disorder (ADHD). However, there are several behavior ratings and computerized tests of attention; most provide measures of hyperactivity-impulsivity and inattentiveness. Some commonly used measures include (note: the following attention ratings forms and tests are available from ADD Warehouse) the following:

**Behavior Ratings**

- Conners Adult ADHD Rating Scales, ages 18-50 or older
- Attention-Deficit Scales for Adults
- Brown Attention-Deficit Disorder Scales, Adult Version
- Adult Version Copeland Symptom Checklist for Attention Deficit Disorders, Adult Version
Computerized Tests of Attention
- Conners Continuous Performance Test, ages 6-adult
- Tests of Variables of Attention, ages 4 through 80
- Gordon Diagnostic System, children and adults
- Integrated Visual and Auditory Continuous Performance Test (IVA), ages 5-adult

Behavior Ratings and Reviews of Other Reports
Finally, results of emotional/behavior ratings and reviews of other reports may be included. Psychoeducational testing typically does not include extensive personality, behavior, or projective testing (e.g., Rorschach) because learning is the focus of psychoeducational testing. However, referral for more clinically oriented psychological testing may be made if indicated by assessment data.

Who Can Perform a Psychoeducational Assessment?
In Tennessee, psychoeducational assessment can be performed by school psychologists, as licensed by the State Department of Education, and by psychologists and psychological examiners, licensed by the Health Related Boards. While psychologists and psychological examiners in most specialty areas of psychology have some training in assessment, persons with training in school psychology typically receive extensive training in educationally relevant assessment and in relating assessment to instruction. In selecting psychologists or other professionals to perform assessment, it is important to ascertain if the professional has specific training and expertise in psychoeducational assessment, particularly assessment of learning disabilities and other learning-related disorders.

What Are the Components of a Good Psychoeducational Assessment?
- Referral question(s)
- Referral source
- Background information
- Assessment procedures
- Relevant test procedures
- Assessment results
- Interpretation of results
- Summary and recommendations
Referral question: First, it is important to identify the referral question. Why is the client being referred? For our purposes, the most common reason is to rule out a learning disability. However, there are rival explanations for a client’s poor progress, including attentional problems, emotional problems, low overall ability (i.e., low average or borderline intellectual ability), and mental retardation. In some cases, the referral question may not be explicitly stated; nonetheless, the question determines the specific areas to be included in assessment.

Referral source: Who referred the client for assessment?

Background information: Educational history, current educational services or status, educational goals, results of any screening instruments (e.g., brief IQ or achievement tests) and social and medical history should be reported here. Especially relevant is educational history. Any available scores on school- or classroom-administered standardized or informal tests and information about classroom performance (e.g., has difficulty spelling commonly used words) should also be included. Background information may be gleaned from records, screening tests, questionnaires, checklists, and interviews with the client and relevant professionals (e.g., teacher, counselor).

Assessment procedures: All sources of information should be listed; all assessment procedures should be listed. These include any and all formal and informal tests, questionnaires, and any other assessments performed by the examiner. In addition, interviews, record reviews, and any and all other sources of data are listed here. Assessment procedures are determined by the referral question and by data gathered during assessment. For a learning disability, state and federal guidelines must be followed. Assessment for learning disabilities requires administration of

- individually administered full-length IQ test
- individually administered achievement test with multiple measures of reading, writing, mathematics, and, sometimes, language
- additional cognitive testing in areas not addressed by the IQ test (e.g., auditory/phonological processing, long-term retrieval, and retention).

In addition, if attentional problems are indicated in history, interview, and/or assessment, additional assessment should include rating scales to assess attention deficit/hyperactivity disorder and/or a computerized test of attention. Finally, if low borderline or mentally deficient intellectual
functioning is indicated, additional assessment must include a measure(s) of adaptive behavior.

**Relevant test behaviors:** In this section, information impacting rapport and the actual testing itself are reported. For example, the client’s timeliness for the session, demeanor, attention span, work habits, affect, motivation, energy level, talkativeness, and any other potentially relevant characteristics should be described here in objective, nonjudgmental terms. Unusual habits or mannerisms should be described. Wearing eyeglasses or contacts, use of a hearing aid, frequent requests to have items repeated, handedness, and requests for frequent breaks should be reported.

**Assessment results:** Test results should be reported in terms of *standard scores* and *percentiles*. In some cases, *grade equivalents* are also appropriate.

*Standard score* has a predetermined mean and standard deviation (in most cases, 100 is the mean and 15 is the standard deviation). These scores can be added and subtracted for comparison purposes. For scores with a mean of 100 and standard deviation of 15, the following classification categories are typically used:

<table>
<thead>
<tr>
<th>Standard Score</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-85</td>
<td>Low Average</td>
</tr>
<tr>
<td>90-95</td>
<td>Average</td>
</tr>
<tr>
<td>110-115</td>
<td>High Average</td>
</tr>
<tr>
<td>120-145</td>
<td>Superior</td>
</tr>
</tbody>
</table>

Approximately 2/3 (68%) of the population scores fall here.
A learning disability exists when the client has some intraindividual strengths and weaknesses; that is, some high ability and achievement areas and some low ability and achievement areas. For example, a client with a reading disability may have average or better overall intelligence but weaknesses on processing speed and auditory processing cognitive tasks combined with strengths in mathematics and weaknesses in reading.

Percentile: A score that represents a person’s rank, ranges from 1-99. A score at the 50th percentile means the client’s score was equal to or better than 50% of those on whom the test was normed.

Grade Equivalent: A rough approximation of the client’s level of functioning in a given academic area. Technically, a grade equivalent score is average of the raw scores that were obtained by persons in the norming sample in a given grade.

Interpretation of Results: The results should be interpreted and integrated in a meaningful way for the reader. Global scores (e.g., full-scale IQ scores, composite scores on achievement tests) should be discussed first with more specific information (i.e., composite or scale scores and individual subtest scores) to follow. The client’s interindividual strengths and weaknesses (i.e., is, his or her performance as compared to others’) and the client’s intraindividual strengths and weaknesses (i.e., his or her performance in some areas relative to others) should be discussed. A learning disability exists when the client has some intraindividual strengths and weaknesses; that is, some high ability and achievement areas and some low ability and achievement areas. For example, a client with a reading disability may have average or better overall intelligence but weaknesses on processing speed and auditory processing cognitive tasks combined with strengths in mathematics and weaknesses in reading. Comparisons of this type should be made in the interpretation section of the report. Some reports include a separate interpretation section, while others include interpretation with the reporting of the scores.

Note: Many states use a Standard Score Discrepancy Model to determine the presence of a learning disability. Specifically, the client’s IQ score is compared to one or more achievement test scores. If there is a significant discrepancy between the two, then the client is said to have a learning disability. Some states require the discrepancy to be more than one standard deviation (i.e., more than 15 points) to be considered significant. Other states require a larger discrepancy (e.g., more than 1.5 standard deviations, which would be more than 22.5 points). Still other states do not use a discrepancy formula to determine learning disabilities. Some use a regression formula. There are several variations of the regression formula, but they all are designed to determine if a significant difference between IQ and achievement exists. Regression formulas take into account the correlation between IQ and achievement and base determi-
nation of a significant difference on achievement test scores, which are predicted by the examinee’s IQ score. As IQ scores get further from the average, the associated predicted achievement scores get closer, or regress toward the mean. The result is that it is statistically more rare for a person with an IQ below the average to have a 15-point difference between IQ and achievement than it is for a person with an IQ above the mean. Regression formulas for determining discrepancies correct for this statistical problem.

**Summary and Recommendations:** This is perhaps the most important part of the report, and, unfortunately, where many reports fall short. Examiners with appropriate educational background and experience should produce well-founded recommendations, especially instructional recommendations. A succinct summary of the most relevant background and assessment information should be followed by a clearly stated diagnosis(es). Next should follow specific instructional recommendations. The assessment data should yield educationally relevant suggestions. For example, clients with reading disabilities may need sequenced instruction with a heavy emphasis on phonological skills. Another client with slow processing speed might benefit from timed drills in math facts to increase speed of math fact recall/retrieval. Other types of recommendations may include accommodations, such as extended time, audiotaped presentations of reading material, shortening or modifying the format of assignments, and breaking large tasks into smaller ones. In addition to educational recommendations, recommendations for further assessment (e.g., medical testing) and other services (e.g., psychological counseling or therapy) may be appropriate. In some cases, assessment may indicate the client does not appear capable of performing at a level consistent with meeting current goals (e.g., passing the GED). Thus, recommendations for counseling and seeking alternative services would be appropriate.

**Educational Recommendations**

Arguably the most useful part of a psychoeducational report is the Educational Recommendations section. Unfortunately, here, perhaps more than in any other section, psychoeducational reports may vary. Professional literature in the fields of school psychology and special education decry the need for making psychoeducational reports relevant for educational programming (Overton, 2000), but assessment data do not automatically yield specific educational recommendations. Skilled examiners interpret the data and make research-based recommendations.
Mather and Jaffe (1992) provide a comprehensive resource that relates weaknesses in cognitive and academic abilities to specific educational strategies, methods, and interventions. Following is a chart, based on the work of Mather and Jaffe that which relates cognitive weaknesses to the common accompanying academic weaknesses and makes educational suggestions for those areas of weakness. For more extensive suggestions, see Mather and Jaffe (1992).

### Educational Recommendations for Common Cognitive and Academic Weaknesses*

Compiled by Sherry Mee Bell, Ph.D.

<table>
<thead>
<tr>
<th>COGNITIVE ABILITY</th>
<th>COMMON ACADEMIC WEAKNESSES</th>
<th>RECOMMENDATIONS FOR WEAKNESS IN THIS AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Long-term retrieval</strong></td>
<td>• basic reading skills</td>
<td>• review, repeat</td>
</tr>
<tr>
<td>• storage and retention of information</td>
<td>• reading comprehension</td>
<td>• multisensory teaching/learning strategies</td>
</tr>
<tr>
<td>• ability to retrieve and use previously stored information</td>
<td>• written expression</td>
<td>• provide meaning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• limit amount of new information</td>
</tr>
<tr>
<td><strong>Auditory processing</strong></td>
<td>• basic reading skills</td>
<td>• provide multisensory learning</td>
</tr>
<tr>
<td>• discrimination, analysis, and synthesis of auditory stimuli</td>
<td>• written expression</td>
<td>• provide class notes and study guides</td>
</tr>
<tr>
<td>• auditory attention, perception, and discrimination, despite background noise</td>
<td></td>
<td>• use visual aids and graphic organizers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• use semantic or mental mapping techniques</td>
</tr>
<tr>
<td><strong>Phonemic awareness</strong></td>
<td>• basic reading skills</td>
<td>• teach phonemic awareness</td>
</tr>
<tr>
<td>• manipulation, analysis, and synthesis of discrete sounds</td>
<td>• spelling</td>
<td>• teach basic phonics rules</td>
</tr>
<tr>
<td></td>
<td>• written expression</td>
<td>• teach spelling with reading</td>
</tr>
<tr>
<td></td>
<td>• basic writing skills</td>
<td>• emphasize patterns in words to be learned</td>
</tr>
<tr>
<td><strong>Visual processing</strong></td>
<td>• not strongly related to achievement</td>
<td>• use manipulatives</td>
</tr>
<tr>
<td>• perception, analysis, and synthesis of visual stimuli</td>
<td></td>
<td>• teach verbal mediation of visual/spatial skills</td>
</tr>
<tr>
<td>• storage and memory of visual stimuli</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Based on Mather (1999).
## The Assessment Process

<table>
<thead>
<tr>
<th>COGNITIVE ABILITY</th>
<th>COMMON ACADEMIC WEAKNESSES</th>
<th>RECOMMENDATIONS FOR WEAKNESS IN THIS AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Short-term memory (auditory)</strong></td>
<td>• basic reading skills</td>
<td>• review and repeat hold memory strategies</td>
</tr>
<tr>
<td>• processing and holding auditory stimuli in awareness</td>
<td>• reading comprehension</td>
<td>• teach memory strategies</td>
</tr>
<tr>
<td>• manipulating/using it within a few seconds</td>
<td>• math reasoning</td>
<td>• keep directions short</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• provide class notes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• use audiotape recorder to record class notes</td>
</tr>
<tr>
<td><strong>Processing speed</strong></td>
<td>• basic reading skills</td>
<td>• provide extended time</td>
</tr>
<tr>
<td>• rapid cognitive processing without higher order thinking</td>
<td>• written expression</td>
<td>• emphasize quality over quantity in assignments</td>
</tr>
<tr>
<td>• attentiveness and fluency in processing</td>
<td>• math calculation</td>
<td>• use flash cards and timed drills</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• teach skills to automaticity</td>
</tr>
<tr>
<td><strong>Verbal reasoning</strong></td>
<td>• basic reading skills</td>
<td>• teach vocabulary</td>
</tr>
<tr>
<td>• reasoning and comprehension using language</td>
<td>• reading comprehension</td>
<td>• relate new information to already learned information</td>
</tr>
<tr>
<td>• verbal expression</td>
<td>• written expression</td>
<td>• provide context and background</td>
</tr>
<tr>
<td>• vocabulary</td>
<td>• math reasoning</td>
<td></td>
</tr>
<tr>
<td><strong>General information and knowledge</strong></td>
<td>• basic reading skills</td>
<td></td>
</tr>
<tr>
<td>• acquired knowledge</td>
<td>• reading comprehension</td>
<td></td>
</tr>
<tr>
<td>• long-term memory</td>
<td>• written expression</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• math calculation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• math reasoning</td>
<td></td>
</tr>
<tr>
<td><strong>Fluid reasoning</strong></td>
<td>• reading comprehension</td>
<td>• review and repeat material to be learned</td>
</tr>
<tr>
<td>• inductive and deductive reasoning</td>
<td>• written expression</td>
<td>• use manipulatives</td>
</tr>
<tr>
<td>• problem solving on novel tasks</td>
<td>• math calculation</td>
<td>• teach problem solving skills</td>
</tr>
<tr>
<td></td>
<td>• math reasoning</td>
<td>• guide learning step by step</td>
</tr>
<tr>
<td><strong>Quantitative reasoning</strong></td>
<td>• math calculation</td>
<td>• use manipulatives</td>
</tr>
<tr>
<td>• understanding math concepts and relations</td>
<td>• math reasoning</td>
<td>• teach problem solving skills</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• drill for automaticity on math facts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• use practical, every day math</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• use calculators to teach, check work and when math concepts are the emphasis</td>
</tr>
</tbody>
</table>
References

for “Psychoeducational Assessment”


CHAPTER 3
The Planning Process

Introduction
Effective teachers know that planning begins the moment you meet and start to work with a student. It starts informally as you welcome, listen, and help a new learner feel comfortable. As you observe—using a checklist, notes, or another method—you are already considering what this student may want and need.

As is stressed in *Bridges to Practice*, we need to put a more deliberate emphasis on this stage of service to adult learners. Why? With adults, it simply won’t do to plan for. The adult learner herself is a critical player. Planning for must be replaced with planning with. When adults aren’t invited to participate in decisions about learning, they sometimes leave. If they stay, they may improve basic skills, but they aren’t likely to gain self-advocacy, a crucial ingredient of success for anyone, particularly those with a learning disability.

This chapter is based on the planning processes outlined in *Bridges to Practice: Guidebook 3*. First we will read about the approach of Glenda Turner, a teacher in the action research group, as she shares the way she used her keen observation of students to prepare to develop a plan. Then we will look at curricular options that a teacher and learner might consider, and we will think about how to go about planning together. We’ll examine the key role of self-advocacy and hear personal accounts from Rebekah White-Williams and Joe Spoon. Finally, we’ll consider some tools from *Equipped for the Future*, an adult education framework developed by the National Institute for Literacy that may be used in developing the instructional plan.

Preparing to Develop an Instructional Plan
The information gathered in the assessment process (described in Chapter 2) is used at this point to prepare for an instructional plan. The practitioner should be familiar with the learner’s assessment profile in order to make good decisions about a curriculum.
In the section on “Preparing to Develop an Instructional Plan,” Bridges to Practice notes that the teacher needs to utilize information gathered in the assessment process, including tests as well as her own observations, in working with the student on an instructional plan. As you read about Glenda Turner and her work with Anita and Robin, notice:
• how she weaves together assessment information from her students and her own observations and
• how she engages them in decisions about their own learning.
Can you think of additional ways in which Turner could have shared the planning?

Glenda Turner’s Experience:
Using Observation to Plan With Students

Anita
Anita is a 35-year-old female. She enrolled in my Families First class January 18, 2001. I noticed unusual AMES level 7D scores. They were reading 12.9+, math k.0, and language 9.7. She completed all the entrance forms that day, and we spent some time talking. I always spend as much time as possible with new students to get to know them better, to answer questions, and to help relieve anxiety.

On the screening checklist, I made notes of pertinent aspects of Anita’s background. At age 12, she moved to East Tennessee. She does not remember doing much math in class. Even though she made Fs in math, her other grades helped her to pass. She moved with her family back to California when she was in the ninth grade. When Anita was 15, she lied about her age and went to work in a fast-food restaurant. The people she worked with helped her learn how to count change. She later worked at casinos at Lake Tahoe. Counting large amounts of money was very difficult for her. She would go to a quiet place and count the money several times.

Several people in her family struggle with learning, for a variety of reasons. Anita’s father is illiterate, but successful. Her brother has experienced learning problems. She has three children; her oldest child is in high school and has been certified learning disabled, her 9-year-old attends Tennessee School for the Deaf due to serious hearing problems, and her 4-year-old is exhibiting ADHD characteristics.

Anita told me she didn’t even try on the math because she had always had problems in school. I gave her books I thought would be appropriate. After watching her for several days, I was sure I needed to make adjustments in her program. She was not staying on task, and she was accomplishing very little.

I suggested that Anita meet with me after class so we could discuss her program. She seemed very willing to do what was necessary to help herself. She went through “Analyzing My Learning,” marking a number of things that were significant:
• Health/medical – too much energy and not enough energy, anxiety
• Math – copying numbers, working in columns, steps in problems, con-
fusion of left and right. (Glenda had noted these items, as well.)

• Other (Behaviors/Psychological Manifestations) – difficulty organizing her time. (Here, Glenda had also observed a significant number of additional items, including difficulty concentrating, easily distracted, difficulty sitting still, displaying off-task behavior, lack of productivity, impatience, impulsive.)

I talked with Anita about her problems of staying on task and her inability to complete much work during the 4 hours she was in my class. Anita agreed that it would be helpful if she could be tested through the Department of Human Services’ Family Services Counseling. Together, we completed the necessary paperwork for that process. I explained that it was very important that she try to understand herself and be involved in making these decisions.

Then we started to try out some strategies and initiate a change in her study environment. Anita moved to an area of the room where she would have fewer distractions, helping to locate the area for her own desk. I then purchased the following items to help her better organize her study materials: notebook, dividers, zippered pouch, pencils, highlighters, and acetate overlays. We talked about the best color of highlighter for her and the effect of different colored overlays to place over her reading materials. Anita made her own calendar on the computer. I encouraged her to write down assignments and school-related events. Anita felt very good about what we had done.

Anita could not handle long assignments. Again, we tried different strategies to see if they helped. She did much better when given one social studies unit at a time. We decided I would enlarge math assignments and cut them apart into half-page sizes. We started on subtraction. Success! She advanced to division and then to multiplication after I found a tutor to work with her one day a week. I wanted her to have the advantage of the one-on-one help I could not provide. She told me no one had ever taken the time to talk about her difficulties with learning. Anita expressed a desire to try some of my suggestions with her own children.

Postscript: Anita had a number of family problems. When she entered Family Services Counseling, Glenda did not see her again. She does not know if she was ever tested for learning disabilities.
Robin
I decided to try the same method with another student in my class who was disorganized, often frustrated, and not completing very much work. Robin was tested January 3, 2001. Her AMES scores were reading 9.9, math 4.7, and language 4.7.

When doing the observation checklists, Robin and I had checked very similar items:
• Math – difficulty with facts and procedures
• Other (Behaviors/Psychological Manifestations) – Almost every item under attention, organization, and social.

We tried some strategies similar to those that had helped Anita. Robin moved to her own special chosen part of the room. Help was given with organization of materials, especially her notebook. Robin and I decided she would only work on reading and math. She began to see improvement. I began to see improvement, not only in her work, but also in her feelings about herself and her ability!

Robin was retested March 30, 2001. Her score in reading was 12.9 and 12.5 in math. Robin is now working to improve her language score. She also knows she must keep reviewing to maintain that good math score.

Postscript: Robin left the class to work at a nursing home.

Determining a Curriculum
Learners may have learning needs in any of five curricular areas:
• Basic skills
• Critical content
• Learning Strategies
• Social skills
• Self-advocacy

Choices About Learning: Curricular Areas
As you plan together with your student, consider the priorities for this particular person. What does she most need to learn? Bridges to Practice suggests five curricular options from which to choose in working with a person who may have learning disabilities: basic skills, learning strategies, critical content, social skills, and self-advocacy. An adult learner may
need to work on one or several of these options at once, but she may never have thought about her priorities. The teacher will need to find a way to present and explain them as possible areas on which she might choose to work. Later in this chapter you will find tools suited for this purpose.

Most adults coming to adult education will choose to improve some of their basic skills, and many will have decided to work toward a GED and/or some other credential that will require learning specific critical content. As you observe and work with your student, you will likely be the one to recognize the need for one or more of the other three. She may comment that she just cannot seem to remember what she reads or the steps in some procedure, but she probably isn’t aware that learning strategies would be of help to her. She may know that she “just doesn’t seem to get along with other people,” but she may not translate that to a need for better social skills. She may say that she “just lets people run all over her” or that she doesn’t want anybody to know she can’t read well, but the term self-advocacy may be new to her.

The questions below are helpful in working with a learner to determine educational priorities:

- **Basic skills:** Does she need to acquire basic skills for acquiring and expressing information (e.g., reading, spelling, reading comprehension, math)?
- **Critical content:** Does she need to learn critical content necessary for daily interactions and responsibilities (e.g., for GED, driver’s license, test for any particular job)?
- **Learning strategies:** Does she need to acquire learning strategies for completing tasks efficiently and effectively (e.g., memory strategies, study strategies)?
- **Social skills:** Does she need to learn social skills for interacting successfully with others (e.g., listening skills, effective body language)?
- **Self-advocacy:** Does she need to learn self-advocacy strategies for communicating her interests, needs, and rights (e.g., being assertive rather than passive or aggressive, practicing a job interview in which she puts forward abilities as well as disclosing a disability)?

The Role of Self-Advocacy in Success

Self-advocacy is the one area from the five curricular areas with which teachers are often least familiar. However, it is essential for students with
learning disabilities to advocate for their needs both in the classroom and in other arenas.

Some people with learning disabilities do well in life; others barely cope. What factors make the difference? This is no idle question since we are talking about a person’s ability to be happy and productive.

Researchers Gerber, Ginsberg, and Reiff (1992), found the following conditions increase the likelihood of success:

- being informed that they have a disability,
- accepting the disability,
- developing approaches to education and employment that acknowledge the disability and do not attempt to avoid the problems,
- the desire to succeed,
- goal orientation, and
- reframing past learning disability experiences in more positive and productive manners.

These characteristics together paint a clear picture of self-advocacy.

Personal Experiences With Self-Advocacy

Teachers know a lot about raising self-esteem, but helping a student to develop the ability to speak out for herself goes several steps further. To support students in becoming advocates for themselves, we need to explicitly teach them

- to identify their strengths and weaknesses,
- to understand how they learn best and to figure out adaptations that help them succeed,
- to set goals and work out strategies for monitoring progress toward those goals, and
- to develop effective, assertive communication skills—and practice them.

Two of the teacher participants in the LD Action Research Project have written of their own experiences with disabilities and their own journey of self-advocacy.
Rebekah White-Williams: My Story of Struggle

When I started school, I was so excited. I couldn’t wait to learn my ABCs and numbers. I was thrilled at the possibility of reading like my big brothers. I thought that school would be the most wonderful thing in the world. But all that ended quite suddenly for me. I had such a hard time learning. For the rest of my school years, and even into the first 2 years of college, I would struggle with understanding what I read. I would find myself thinking I was not capable of learning.

It was because of my parents that I wanted to go to college. I had decided I would make something of myself and lick this problem. I had thought that I just wasn’t focused enough on my studies. I struggled through the first 2 years and was about ready to give up when I met this wonderful teacher. He understood my problem right away. His wife was certified in teaching LD students and could possibly help me. Upon meeting her, I felt as if a wonderful door had opened for me. I found that I wasn’t dumb and that I was able to learn. She showed me ways of learning and taught me about tools that could help me with my problem. All of a sudden, learning wasn’t a chore. It became a wonderful experience, and I wanted to learn more. I was hungry for learning and became eager to learn. Because of these people, I realized I was capable of learning. I learned that people with LD aren’t dumb, they just learn differently.

Joe Spoon: What Contributes to Success or Failure?

For the longest time I have been interested in learning disabilities. In my career as an educator, I have worked with many learning disabled individuals. The learning disabilities of these students ranged from very mild to the most severe types of LD. It has been my experience that there is a great deal of potential for success for those who have been diagnosed as learning disabled. I have often wondered just what unseen qualities an LD individual has that affects his or her success or failure in life. For an answer to this question, I often look inward and try to relate the success-and-failure experiences of my own life to my LD students.

First, let me explain my disability. I am legally blind. I have an inherited visual condition called “optic atrophy.” I have been told by doctors that my optic nerve never developed completely. Although my disability is more physical, I must deal with the limitations of partial vision each and every day. What factors played out in my life to allow me to achieve any
success? I feel that learning about myself and learning what to do to help myself play an important role in my life.

My need to begin to do things for myself did not begin until I was ready to enter school. Up until that time, I can’t remember poor vision being much of an issue with my family or my friends. Mother and Dad must have known, but they were doing all sorts of minor accommodations to help me. For example, I remember now just how large the letters were that Mother would print for me to study and learn.

At school, I found myself in a situation totally foreign to me. The teacher handed out dittos, put assignments on the board, and asked the students to read from small print books. I was so frustrated and lost that I would often just sit in my seat and tremble. What could I do? My parents and the teacher decided that there was no immediate solution. I was taken out of the first grade. Before the next school year began my parents were contacted by a lady who would prove to be the catalyst for any success that I have had. Mrs. Joyce Bromley was contacting the parents of children with vision problems for a newly formed sight-saving class. The following year I entered school once again. I stayed in a regular classroom. I would only go to Mrs. Bromley’s class when I needed to read things in large print or to have material read to me. My ability to do my school work improved.

[Later] I began to develop attributes that would serve to bolster the assistance the new class was giving me. The fear of not being able to do things like other people went away. I became stronger emotionally. Many of my problems were dealt with through accommodations offered. The sight-saving materials and other resources were the support system I needed for success. As I moved up in grade level my parents and teachers would meet to set realistic goals for my educational success. With these elements in place, I progressed through school.

I learned a lot about myself during those years. I grew in awareness of myself. I realized that a big portion of my success depended on me. I had to speak up for myself.

What factors played out in my life to allow me to achieve any success? I feel that learning about myself and learning what to do to help myself play an important role in my life.

I learned a lot about myself during those years. I grew in awareness of myself. I realized that a big portion of my success depended on me. I had to speak up for myself.
This analysis of my own learning needs seems to parallel a needs pattern of many learning disabled students. There is a strong indication that we as teachers of the learning disabled need not only to develop ways to accommodate our students’ learning style and intelligences. We must also assist our students in acquiring ways to improve in the ways they may feel about themselves. Being sound emotionally, being aware of oneself, being able to participate in the goal-setting process, and being able to persevere in a course of action just may be the real keys for success.

**Developing the Instructional Plan**

Using the profile of the learner developed in the assessment process, solid decisions can be made on an instructional plan for the learner. The development of this plan should include

- Setting of realistic and obtainable goals
- Breaking down of goals into short-term objectives
- Transforming the short-term objectives into unit and lesson plans
- Making the instructional plan LD-smart

The instructional plan should be developed through a joint effort of the practitioner and the learner.

We have examined curricular options that a person with LD may need, noting the important role of self-advocacy. We’ve recognized that planning with rather than planning for is a critical early step in fostering that very self-advocacy. But how do we do it—planning in partnership with students?

Some tools from Equipped for the Future (EFF) may prove helpful. EFF, now a national initiative to build a new adult education framework, began with what adult learners said they needed from adult education. (To learn more about EFF, go to <http://www.nifl.gov/lincs/collections/eff/eff.html>.)

**EFF Purposes Chart:**

“What do you want to know and be able to do?”

Several years ago, adult education students around the country wrote about what they needed to know and be able to do in the 21st century. The four purposes drawn from their writings formed the basis for
Equipped for the Future. Those purposes are listed in the table below and reworded in first person to encourage the active role of adult learners in considering their goals.

As you read the chart, think about how you might use it, along with other tools, as a springboard for discussions with your student(s). One possibility is simply asking a question similar to the one that launched EFF, “What do you want to know and be able to do as a result of adult education?”

<table>
<thead>
<tr>
<th>EFF PURPOSES</th>
<th>LD CURRICULAR OPTIONS</th>
</tr>
</thead>
</table>
| **Access**: to gain access to information so I can orient myself in the world. | • *Basic skills*: Do I need to improve basic skills for acquiring and expressing information?  
• *Critical content*: Do I need to learn critical content necessary for daily interactions and responsibilities? |
| **Voice**: to give voice to my ideas and opinions with the confidence that they will be heard and taken into account. | • *Social skills*: Do I need to learn social skills for interacting successfully with others?  
• *Self-advocacy*: Do I need to learn self-advocacy strategies for communicating my interests, needs, and rights? |
| **Action**: to solve problems and make decisions on my own, acting independently, as parent, citizen, and worker, for the good of my family, my community, and my nation. | • *Social skills*: Do I need to learn social skills for interacting successfully with others?  
• *Self-advocacy*: Do I need to learn self-advocacy strategies for communicating my interests, needs, and rights? |
| **Bridge to the future**: to keep on learning in order to keep up with a rapidly changing world. | • *Learning strategies*: Do I need to acquire learning strategies for completing tasks efficiently and effectively? |
Using the EFF Skill Wheel to Set Goals
Another way to look at planning for learning is noticing where the EFF Standards (that address the purposes) match with LD curricular options. (See Appendix D for a complete, reproducible copy of the EFF skill wheel.)

<table>
<thead>
<tr>
<th>EFF SKILLS CATEGORIES</th>
<th>LD CURRICULAR OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>• Part of social skills, self advocacy, and basic skills</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>• Part of social skills and self-advocacy</td>
</tr>
<tr>
<td>Decision making</td>
<td>• Skills needed for self-advocacy</td>
</tr>
<tr>
<td>Lifelong learning</td>
<td>• Learning strategies assist adults with LD in being lifelong learners because, through the use of the strategies, they learn how to learn.</td>
</tr>
</tbody>
</table>

EFF Standards for Adult Literacy and Lifelong Learning
Using EFF Role-Maps to Plan for Learning

Equipped for the Future recognizes that adults have many roles: as individual learners, parents/family members, workers, and citizens/community members. The EFF role-maps can be an extremely natural “way in” to conversation about learning needs and goals. (See Appendix D for complete, reproducible copies of the EFF role-maps.)
Tammy, an adult learner, and her teachers used the role maps as a springboard for thinking through her goals and learning plan. Notice how her teachers guided her in this process.

3 Mind Maps: Tammy, an example from the Family Literacy Program

Tammy, a learner in the Farmington (ME) Even Start Program, used the Mind Map to articulate her goals for participating in the program. Although Tammy was able to readily define her goal, she was not clear about how that goal would impact all areas of her adult roles. Over time, Tammy’s Mind Map evolved into the one shown below.

Tammy’s teachers, Janet Smith and Sue Kelly, asked Tammy what skills she thought would be required to get her son back. Then, together they looked first at the various EFF Role Maps, including the Key Activities listed under each. Through lots of discussion, Tammy began to realize that it would be a big challenge to accomplish her long-term goal. Tammy had to look at the EFF Common Activities and the Generative Skills in order to really understand what performing the Key Activities might entail. Her Mind Map contains a series of smaller goals that will hopefully lead to the achievement of her larger goal.

Tammy feels using the Mind Map is helpful because she now knows what she has to do. It was helpful to set goals with her teacher.

“I’m further ahead now than I was a year and a half ago. My main goal hasn’t changed, and I have been able to work through smaller goals as they came up.” (Tammy is still enrolled in the program and continues to make progress.)

Tammy’s major goal has been reunification with one of her sons. Smaller goals included the ability to plan for visits with her son, both for two-hour visits that take place at the courthouse and for overnight visits they were having at home. Other smaller goals included learning how to control her temper at her networking meetings with DHS, counselors, Continued on page 11

The Planning Process

Family

Parent

KEY ACTIVITIES
- Make and pursue plans for self-improvement
- Direct and discipline children
- Give and receive support from outside the immediate family
- Form and maintain supportive family relationships
- Provide opportunities for each family member to experience success

KEY ACTIVITIES
- Plan life around boys
- Improve parenting skills
- Reunite my family
- Resolve conflict & negotiate
- View critically
- Reflect and evaluate
- Advocate and influence
- Inform others of services available as a result of my own needs

Community

KEY ACTIVITIES
- Volunteer in schools
- Get more involved in community projects
- Cooperate with others
- Advocate and influence
- Help self and others

Self

- Attend church
- Exercise and patience
- Read critically
- Gather, analyze and use information
- Seek guidance and support from others
- Develop and express sense of self
- Create and pursue a vision and goals

Work

- Need training to be a Primary Care Attendant
- Volunteer in nursing home and possible job contact
- Read critically
- Speak so others can understand
- Cooperate with others
- Plan
- Research
- Reflect and evaluate

TAMMY’S GOAL:
To get my son back

Spring 2001
Using a Goal Setting Form From EFF Teachers

Another planning tool you may choose to use (alone or with some of the other tools) is a Goal-Setting Form. (See Appendix D for reproducible copies of this and other tools described in this section.)

You have talked with your student about her priorities and planned together the things on which she will focus. You are now ready to adjust your teaching in ways that will be more effective for struggling students. In Chapter 4, we look at keys to effective LD instruction and then share tools and strategies for implementing that instruction.
CHAPTER 4  
The Teaching/ Learning Process

This chapter begins with key guidelines to the LD teaching/learning process. It continues with a discussion of specific LD-appropriate strategies for reading, spelling, reading comprehension, and math.

Guidelines to Effective LD Teaching Practice  

*Bridges to Practices: Guidebook 4* discusses several guidelines for working with adult learners with learning disabilities. We have focused on the three key guidelines that are wide-reaching and encompass the others.

Key #1: Create an Appropriate Learning Environment That Promotes Learner Independence

- Guide learners to be active and independent by asking such questions as
  - So…how would you do that?
  - How would you find that information?
  - How would you remember that information?
  - How did you figure that out?

- Involve learners in how they learn.

- Design instruction around the interests and everyday needs of learners.

- Remember that adult learners bring knowledge and past experience with them. They have insight into how they learn, compensate for difficulties, and find success.

- Encourage learners to keep track of their progress.

- Reinforce the learning by providing continuing opportunities for practice and by giving immediate and frequent feedback.
Key #2: Provide Instructional Adaptations and Accommodations

These two terms often apply to the same tools and approaches that make a learning task more manageable. The distinction between the terms is a legal one.

- **Accommodations** are adaptations to which a person diagnosed with LD has a legal right. They include a wide range of tools and changes in the way a task is done, including all those listed below under adaptations. For people struggling with an essential life function due to a learning disability, specific accommodations can move them from frustration and failure to achievement and productivity! The possibility of such a change is one of the strongest reasons for getting a diagnostic evaluation.

- **Adaptations** may be identical to accommodating, but when there is no LD diagnosis, there is no legal right to use them (e.g., in a testing situation or on the job). Many of us have stumbled onto some helpful adaptation in life without thinking of it as such: color-coding, reading out loud when we’re trying to digest a complicated article, or taking frequent breaks. Adaptations that involve assistive technology are part of our everyday lives: hearing aids, glasses, computers, magnifying glasses.

Some examples of adaptations (which could be accommodations if legally required) are:

- extended time for completing a task or test or break it into manageable chunks
- writing directly on the test, rather than on an answer sheet
- reading or planning aloud or with a partner
- using mind (semantic) mapping when prewriting or taking notes
- writing on alternate lines when writing a paragraph or essay
- using legal pads turned horizontally when doing arithmetic processes that require figures in straight columns
- using large print with a lot of white space, particularly around math problems
- trying environmental changes: frequent breaks, quieter space, white noise, different lighting
- using organizational aids: day planners, color-coded materials, watches with alarms
- using assistive technology and compensatory devices: books on tape or disc, calculators, alternate forms of tests, hand-held spell checkers, speech synthesizers; talking word processors and text readers, software for speech recognition, outlining, brainstorming, proofreading, or semantic mapping
Key #3: Implement LD-Appropriate Instruction

Characteristics of LD-Appropriate Instruction

What do we mean by LD-appropriate instruction? There are important characteristics described in Bridges to Practice: Guidebook 4. LD-appropriate instruction is

- **Structured** – involves systematically teaching information that has been chunked into manageable pieces.

- **Connected** – shows the learner how information in and among units and lessons are linked to the learning process and to the learner’s goals.

- **Informative** – involves making sure that the learner is informed about how the learning process works, what is expected during the instructional situation, and how she can improve learning and performance.

- **Explicit** – involves providing detailed explanations and models to the learner about how to approach, think about, perform, and evaluate learning and performance.

- **Direct** – is characterized by high rates of teacher or tutor leadership and control during the initial stages of information acquisition, followed by careful monitoring of the learner’s performance as she gradually assumes control of and masters the information.

- **Scaffolded** – involves the frequent use of connected questions and collaboratively constructed explanations to create a context for learning that is based on the learner’s prior knowledge.

- **Intensive** – involves helping learners to maintain a high degree of attention and response during instructional sessions that are scheduled as frequently as possible.

- **Process-sensitive** – involves re-shaping the activities within the instructional sequence to take into consideration various cognitive barriers that might inhibit learning.

- **Accommodating** – involves providing specific and general adaptations that are legally required to reduce or eliminate the impact a learning disability might have on successful learning and performance.

- **Evaluated** – involves adapting instruction based on an assessment of the learner’s progress and his or her response to previous attempts at instruction.

- **Generalizable** – involves using activities before, during, and after information has been mastered both to ensure continued application of the information and to increase the learner’s success outside of the literacy setting.

- **Enduring** – means that the program providers acknowledge and commit the time necessary to ensure that learners master the information and use it to increase their successes in life.
A list of characteristics from a NIFL monograph (Hughes, 1998) is compared with the list of characteristics from *Bridges to Practice: Guidebook 4* in the following table. As you read the table developed by Amanda Keller, identify which characteristics are already present in your teaching and which ones might be your next steps on this journey.

<table>
<thead>
<tr>
<th>Effective instruction for adults with learning disabilities</th>
<th>Characteristics of LD-appropriate instruction from <em>Bridges to Practice: Guidebook 4</em></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teach important skills:</strong> Deciding what is important to teach is critical given the limited amount of time for instruction in most literacy programs. Adults with LD should be involved in deciding what is important, and skills should be as functional as possible.</td>
<td>Connected</td>
</tr>
</tbody>
</table>
| **Teach less better:** Most adults with LD need explicit, intensive instruction combined with numerous practice sessions to truly master a skill or strategy. It is more effective and efficient to pick fewer (but important) skills and teach them to mastery rather than trying to teach a wide range of skills in a cursory fashion. | Intensive  
Explicit  
Enduring |
| **Teach explicitly:** Because of the learning characteristics of many adults with LD, a direct and explicit approach to teaching is more effective than more “discovery” types of approaches. | Explicit  
Direct  
Informative |
| **Teach contextually:** Literacy skills and strategies should be taught and practiced in the context of “real-life” situations. | Connected  
Generalizable |
| **Explain what is to be learned and why it is important:** Briefly explaining the purpose of the skill, strategy, or activity prior to teaching it clarifies expectations for the adult with LD. Further, discussing the relevance of what is to be learned can increase learner motivation. | Connected  
Generalizable |
| **Check the old before teaching the new:** Before beginning instruction on a new skill or strategy, verify whether the adult with LD has retained any prerequisite skills or knowledge needed to perform the new skills. This type of review is best conducted by requesting that the adult demonstrate performance of the prerequisite skills rather than merely inquiring whether or not he or she can perform them. | Connected  
Structured  
Evaluated |
### Effective instruction for adults with learning disabilities

**Model what is to be learned:** A clear demonstration of the skill or strategy is a must prior to practicing it. Effective modeling includes both a clear and exaggerated demonstration as well as a comprehensive description of any covert thinking or decision-making.

**Use supported practice:** After viewing a demonstration/model, adults with LD benefit from supported or guided practice in a new skill or strategy. Via a series of prompts and/or questions, they are guided through the skill as a way of providing a high level of initial support and success.

**Use controlled materials:** During initial stages of practice, it is sometimes effective to control the difficulty of the task in which the new skill or strategy is practiced. Initial practice in “easy” materials allows the adult with LD to focus on learning the new skill. Task difficulty can be added when success is achieved in controlled material.

**Provide practice, practice, practice (and more practice):** Adults with LD need multiple practice opportunities over time to retain new skills or information. Independent practice (with no guidance or prompting) should be provided only when a high level of success has been achieved during prompted practice.

**Require frequent responses:** Adults with LD learn better when they stay involved during instructional sessions. One effective way to do this is to ask frequent questions related to the information being taught. This facilitates involvement and provides important information about the adult learner’s level of understanding.

**Provide corrective feedback:** Adults with LD should receive corrective feedback as soon as possible in a matter-of-fact manner. Learning rate is enhanced when feedback about quality and correctness of performance is provided in this way.

### Characteristics of LD-appropriate instruction from *Bridges to Practice: Guidebook 4*

<table>
<thead>
<tr>
<th>Direct</th>
<th>Explicit</th>
<th>Scaffolded</th>
<th>Structured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scaffolded</td>
<td>Process-sensitive</td>
<td>Structured</td>
<td>Scaffolded</td>
</tr>
<tr>
<td>Enduring</td>
<td>Evaluated</td>
<td>Enduring</td>
<td>Evaluated</td>
</tr>
<tr>
<td>Generalizable</td>
<td>Intensive</td>
<td>Generalizable</td>
<td>Intensive</td>
</tr>
<tr>
<td>Evaluated</td>
<td>Informative</td>
<td>Evaluated</td>
<td>Informative</td>
</tr>
</tbody>
</table>
| Effective instruction for adults with learning disabilities | Characteristics of LD-appropriate instruction from *Bridges to Practice: Guidebook 4*

**Promote generalization:** Often adults with LD have difficulty transferring what they learn to different settings or to different, but related tasks. It is, therefore, imperative that activities and techniques designed to promote skill or strategy generalization is built into literacy instruction.

**Be prepared:** Implementing the above principles requires preparation. Good teaching may appear “spontaneous”; however, that impression is illusory. The amount of time put into planning is directly related to the quality (effectiveness and efficiency) of instruction.

**Use accommodations only when necessary:** While reasonable accommodations are required by law and are necessary for appropriate instruction and assessment under certain circumstances, two important warnings apply regarding their use: (a) creating a situation where adults with LD become dependent on others versus becoming independent learners and (b) not providing the instruction needed to benefit fully from the accommodation.

**Use caution when selecting instructional techniques and programs:** Many products and approaches purport to be effective with adults with LD. While some may have intuitive appeal and make grandiose claims, there may be no empirical support for their use. Become a cautious consumer. Adults with LD should not be the victims of poor instruction as a result of instructors’ jumping on educational bandwagons.
Tools and Strategies for LD-Appropriate Instruction

The focus of the Tennessee action research project was to become familiar with and try out specific teaching/learning strategies that were consistent with *Bridges to Practice*. The table below lists the tools and strategies to be used as part of LD appropriate instruction, including some that were tried by the LD Action Research Project teachers. Each was chosen because it has several—or all—of the characteristics of LD-appropriate instruction. As each strategy or tool is later described, the pertinent characteristics are pointed out.

To further anchor these concepts in real life, turn back to Chapter 2, “Example Four: Joe Spoon’s Story - Weaving Together Observation, Trial Teaching, and Planning.” What characteristics of LD-appropriate instruction are revealed as Spoon describes his teaching and relating to students? As you recognize them, make notes in the margins of those pages.

<table>
<thead>
<tr>
<th>CURRICULAR AREA</th>
<th>SUB-SKILL</th>
<th>TOOLS AND STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>All content areas</td>
<td>Direct instruction model</td>
</tr>
<tr>
<td>Basic skills and critical content</td>
<td>1. Reading (decoding) and spelling (encoding)</td>
<td>Color coded letter/sound manipulative cards, finger tapping</td>
</tr>
<tr>
<td>Basic skills and critical content</td>
<td>2. Sentence structure</td>
<td>Word shapes used to build sentences</td>
</tr>
<tr>
<td>Basic skills and critical content</td>
<td>3. Reading comprehension</td>
<td>Visualization, relating to prior knowledge (think-a-louds and mapping), learning strategies (RAP, K-W-L)</td>
</tr>
<tr>
<td>Basic skills and critical content</td>
<td>4. Critical-thinking skills</td>
<td>Graphic organizers</td>
</tr>
<tr>
<td>Basic skills and critical content</td>
<td>5. Math: concepts, algorithms and math processes</td>
<td>Hands on examples, direct instruction model</td>
</tr>
<tr>
<td>Self-advocacy</td>
<td>6. Written and oral expression, new behavior and attitude</td>
<td>Discuss-write-read model, direct instruction model</td>
</tr>
<tr>
<td>Learning strategies</td>
<td>7. How to learn</td>
<td>Various</td>
</tr>
</tbody>
</table>
Direct Instruction: A Model (Framework) for LD-Appropriate Instruction

Direct instruction is simply a map for teaching that incorporates all the characteristics of LD-appropriate instruction. Later in the chapter, you’ll see this framework used in a variety of content areas.

As teaching based on direct instruction is being carried out, it will incorporate the characteristics of LD-appropriate instruction: structured, connected, and so forth. Even though each person with LD has slightly different struggles with learning, all benefit from instruction that has the characteristics previously described. Why? Each one helps with processing information, the underlying difficulty in all learning disabilities.

The Direct Instruction Model below was adapted by Amanda Keller from Instruction: A Models Approach (Gunter, Estes & Schwaab, 1995)

The Teaching/Learning Process

Direct Instruction Model

I. Set: Provide Objectives, Establish Expectations, and Introduce the Skill
   A. Activate background knowledge
   B. Involve all students
   C. Relate to real life
   D. Label the learning and set goals

II. Instruction: Introduce and Model the Skill
   A. Teacher does it. (Students use eyes and ears.)
   B. Teacher does it; students help. (Students use eyes, ears, and voices.)
   C. Students do it; teacher helps. (Students use eyes, ears, voices, and pencils.)
   D. Students do it. (Students use pencils.)

III. Guided Practice With Feedback
   Students have the opportunity to practice their new skills under the teacher’s supervision. This is a good opportunity for peer tutoring or cooperative learning, especially in the context of word problems.

IV. Closure
   A. “Tell me (or someone else) what you learned.”
   B. “Show me what you learned.”
   C. “Do one more.”

V. Independent Practice and Generalization
   A. Have student practice his or her new skill independently.
   B. Have student do a problem every day.
   Discuss: “How can you use this skill at home... or at work?”
Direct instruction is an effective way of weaving in all those crucial elements of instruction for adults who are struggling with learning and may have LD.

CONTENT AREAS

1. Reading (decoding) and Spelling (encoding)
Current research stresses the need for phonemic awareness and systematic instruction in phonology (the structure of language) for those with dyslexia (reading disability) (Brady and Moats, 1997). To try out this instructional approach, the action research teachers used the Wilson Reading System (WRS), originally developed for adults and based on Orton-Gillingham principles (Wilson, 1998).

Description of Approach
Color-coded cards for each sound (phoneme) are used to gain automaticity in saying individual sounds, then combinations of sounds as syllables, then words. The teaching/learning is extremely multi-sensory in nature, involving speaking, hearing, touching (cards and fingers), and moving cards around to construct words. It incorporates all characteristics of LD-appropriate instruction. Most are obvious: it is highly structured, explicit, and direct. Evaluation threads throughout the teaching/learning with a question-response component that is intensive and scaffolded. Automaticity at each stage is stressed so that learning is enduring.

Reading (decoding) and spelling (encoding) are taught as complementary processes. Blending sounds (to read) and pulling a word apart into separate sounds (to spell) are learned through hands-on activities. The teacher (and later the student) puts sound cards together and sound-taps the word to read it (e.g., “t-a-g, sh-o-p”). To spell, the teacher (then the student) says the word slowly, identifies each sound through the sound tapping process, picks up the cards for the sounds, constructs the word, then writes it. Paper and pencil activities come last, after multisensory connections have been made.

Surprises, questions, and challenges. The original intent was that each teacher would identify students who had very low TABE reading scores or who were obviously struggling with reading and pretest them with WADE, the Wilson Assessment of Decoding and Encoding. (Wilson, 1998). Then, after several months of instruction, the students would be post-
tested. We knew it would be difficult to measure other strategies (quantitatively, at least), but, with this one, we hoped for some hard numbers, if only for the 6 months of our project.

The first surprise was the difficulty that many students had with phonemic awareness and sound blending, even those who appeared to be good readers in some ways.

“I decided to test all my students, so I would have a baseline for future comparisons. When I started testing, I was truly surprised! I realized that two students, who I had felt were good readers, had extreme problems with sounds and with nonsense words. These students did fairly well on the TABE test, but, at times, they seemed to struggle with the pre-GED test…. In further discussions with these students, they informed me that they would memorize words so they could read, but a lot of times they did not understand what the words meant.”

—Dana Clark

Did these weaknesses help to explain why they had reached a plateau in reading?

There were also some surprises with spelling.

“I found my students had difficulty with the spelling, too. Sometimes I don’t think they could hear specific sounds; thus, they would write down a word totally different from the one I read—even though they repeated what I said.” —Dana Clark

Such struggles with very basic phonemic awareness and sound blending have come to be recognized as the essence of dyslexia. What teachers were seeing certainly encouraged them to move forward with the Wilson program.

The pre-testing, while very revealing, took individualized time that teachers often did not have. Unpredictable attendance also presented a difficulty for testing and sustained instruction. Volunteer assistants would have been so helpful! Most of the teachers did manage to test at
least a few students, but they saw the lengthy testing as a challenge to implementing this kind of program.

There were two other significant challenges. Most of the teachers taught groups with a wide range of reading abilities. In addition, the structure of their classes, like most adult education, was open entry, open exit. Given these two limitations, they wondered how they could carry out a structured program that assumed mastery of skills before moving to the next step

“It takes time to prepare yourself to teach Wilson, and it takes time to develop a pattern of use on a daily basis; but, in the long run, it will definitely pay off.” —Charlene Feuchtinger

The members of the LD Action Research Project wondered how they could individualize as intensely as they needed to do for different skill levels. They wondered if they would have any one student for a long enough period to make a difference.

“Overall, the use of Wilson as a whole program, starting at the beginning and going to the end, is not feasible in an open-entry classroom…[but] I found some of the Wilson program to be extremely helpful. I loved using the cards to help them sound out words. I had students say they were reading better and learning new words. I used these cards with all my students, whether LD or not, and they loved them. Some of my students began making word games using these cards.” —Rebekah White-Williams

“Wilson is a very structured reading program that requires full student participation, attendance, and interest. [As such] it did not work in my FF class. However, elements of Wilson can be used. Sounds and syllables can be taught along with our regular curriculum and also finger tapping. I fell in love with Wilson; but, to use it effectively in AE, I believe it needs to be a Wilson class with a definite class enrollment, meeting at a specific time, and on predetermined days of the week.” —Carol Clamon

This mixed review was consistent among all eight teachers. The approach seemed on target, but the class structure and attendance patterns of this particular program were real barriers to implementing it.
2. Sentence Structure and Grammar
Using “Word Shapes/Sentence Builders”
This multisensory approach to teaching/learning sentence structure and grammar is one that was created by teachers working in a Tacoma, Washington, clinic addressing learning problems. One of their valuable tools and strategies, Word Shapes/Sentence Builder (Stockdale and Possin, 2000), has been preserved through the ARK Foundation. In addition to being very multisensory, this tool is used in a way that incorporates many LD-appropriate characteristics.

Description of Activity
“Sentence Builders” are plastic shapes that can be manipulated to represent parts of speech and syntactic patterns. Through practice manipulating these shapes to build sentence patterns, the student learns the rules of sentence structure. This is a visual representation of syntax, which simplifies learning for people with language problems.” (Stockdale and Possin, 2000, p. 136)

Word Shapes/Sentence Builders illustrate:
• the function of each word in a sentence
• different sentence patterns
• complete and incomplete sentences
• clauses and phrases
• active and passive sentences
• how the same word can be used for different functions
• when punctuation marks, such as commas, are needed
• how to combine sentences
• how to rearrange words in sentences to create questions
• foreign language patterns
(Stockdale and Possin, 2000, p. 136)

Many people with LD are experiential and visual learners. Sentence builders, like other manipulatives, build on those ways of learning.

The student will be constructing a sentence, visualizing it. This is the key. Starting with concrete and representational versions of a sentence, she can later move on to the symbolic version of written words.
### Word Shapes

**I name people, places, and things.**

**Noun**
- **dog**
- **school**
- **Mary**

**I take the place of naming words.**

**Pronoun**
- **I**
- **he**
- **she**
- **you**

**I describe naming words.**

**Adjective**
- **big**
- **green**
- **beautiful**

**I am a doing word.**

**Verb**
- **run**
- **sing**
- **write**

**I am a quiet doing word.**

**Helping or Linking Verb**
- **am**
- **is**
- **are**
- **were**
- **was**

**I describe doing words or quiet doing words.**

**Adverb**
- **clear**
- **quickly**
- **softly**

**I hook together groups of words and show how they are related.**

**Conjunction (subordinating)**
- **because**
- **although**
- **since**
- **as long as**

**I point to naming words.**

**Article**
- **the**
- **a**
- **an**

**I tell where or when the action happened.**

**Preposition**
- **over**
- **under**
- **around**
- **on**
- **in**

**I point back to naming words.**

**Relative Pronoun**
- **who**
- **that**
- **which**

**I connect words or groups of words.**

**Conjunction**
- **and**
- **but**
- **or**

**I am an asking word.**

**Relative Pronoun (questioners)**
- **?**
- **who**
- **where**
- **what**
- **why**
- **when**
- **how**

**From The Source for Solving Reading Problems**

by Carol Stockdale and Carol Possin (2000).


---

**X**

**I say, “No.” I say, “Not.”**

**Interjection (negative)**
- **No!**
- **Not!**
- **Nope!**
Word Shapes, continued

Syntax Exercises

The following sequence of exercises helps the student understand language structure. The pieces can be manipulated to expand and practice syntax in a variety of ways. It is unnecessary to label the shapes as parts of speech such as “verb.” Instead, one can label the word’s function in a sentence such as “doing word.”

Finding the Focus of a Sentence

The focus is the actor (subject) and its action (verb). The student can place the blue on the actor and the red on the action in a picture. He can then be asked to say what is “blue” (actor) and “red” (action) in the picture. This same exercise can be done with sentences.

Practice with Simple Sentences

The student can practice making symbol strings to represent a picture with only one actor and one action. For example, presented with a picture of a cow in a field, the student can say the sentence and then construct the following string with the symbol shapes:

The cow ate grass.

The student can then construct several similar sentences to rehearse this pattern.

A man sang in the shower.

If the teacher rearranges the symbols, the student can practice variations in word order such as, “In the shower, the man sang.” Students see that the same meaning can be expressed with a different word order. Also, various arrangements that do or do not work soon make it apparent that order is important for meaning and the smooth flow of a sentence. The student quickly sees that some pieces go together in phrases such as “in the shower.” For homework, the student can compose simple sentences and reorder these sentences.
**Beginning steps are:**

1. Choose a picture (from magazines or any source) that has one actor (subject) and its action (verb). Present it to the student and ask who (or what) is the actor and what is its action. *It is not necessary—or even advisable at this point—to use the terms for parts of speech.*

2. As the student responds, you model the beginning construction of the sentence with a blue rectangle for the subject and a red triangle for the verb.

3. Following the steps from the Direct Instruction Model, lead the student through sufficient practice with many sentences to independence at this level:
   - Teacher does it.
   - Teacher does it; student helps.
   - Student does it; teacher helps.
   - Student does it.

Many students will verbalize the sentence as they are constructing it, adding another modality. If this does not happen automatically, model and encourage it.

After the student is constructing simple sentences with ease, start writing sentence strips to match the visual sentence. These may be torn apart into words for easy matching and, later, for changing the form of a sentence, such as statement to question. (Adding-machine paper is handy, inexpensive, and tears easily into strips.)

This activity can progress to a rather complex level of sentence structure, as noted above. Even a student who understands simple and compound sentences can stumble in trying to master complex ones.

> “These shapes are wonderful in teaching parts of speech and showing how the parts go together to make the whole. I used these everyday when I was teaching pronouns and verbs. The entire class did these activities and seemed to enjoy them. Some students said it helps—that they understand for the first time.”

—Carol Clamon

Although this tool, *Word Shapes/Sentence Builders*, can be modeled and even taught with a small group of students (2–4), it is used to its maximum benefit in a one-to-one setting. Unless a student is manipulating
the shapes herself, she is losing much of the learning. Also, in a multilevel class, students may need to progress at very different rates. It would be helpful to have teaching assistants or partners. (See Appendix G for a lesson on sentence structure for use with Word Shapes/Sentence Builders.)

3. Reading Comprehension
When students read haltingly or don’t seem to comprehend or remember what they read, reading is no fun or use to them. To help, we have to do some detective work to find out where the problem lies. The steps to follow are described below:

<table>
<thead>
<tr>
<th>Finding the Problem</th>
<th>Teaching Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Can she decode the words?</strong></td>
<td>If not, she probably needs an intensive decoding and syllabication program similar to the one described in the previous section.</td>
</tr>
<tr>
<td><strong>Is she decoding words slowly, but failing to read fluently enough to grasp the meaning?</strong></td>
<td>If she decodes slowly and has much better listening comprehension than reading comprehension, she may need intensive work with measures that improve fluency. She may benefit from intensive instruction and practice with all cueing systems (syntactic and semantic as well as grapho-phonic) so she can better monitor the accuracy of what she is reading.</td>
</tr>
</tbody>
</table>
| **Does she decode well and read with some fluency, yet have poor memory or understanding of what she reads?** | If so, she may need:  
  • assistance in learning to visualize what she is reading  
  • a method of relating what she’s reading to her prior knowledge  
  • a learning strategy to help her remember steps in comprehension strategies  
  • a graphic organizer for understanding how the pieces fit together into the whole  
  • or several of these strategies |
“My students seem to read well as far as being able to pronounce words; yet, when they are asked to discuss the meaning of the words or sum up what the paragraph means, they draw a blank.”

—Dana Clark

Visualizing to Improve Comprehension

If you read well and enjoy it, you probably have vivid mental pictures of the people and situations you’re reading about. What if, when you read words, no pictures came to mind? Understanding and remembering those words and the meaning of the article or story would be much, much harder. Images and other sensory cues (e.g., descriptions of how something feels or sounds) give us hooks on which we hang meaning and memory. They contribute to the mental frameworks of our prior knowledge and experience that are vitally important to understanding what we read.

If a student finds it difficult to visualize what she is reading, she needs explicit instruction in forming mental pictures of the meaning. To do this ask students to listen, make mental pictures, and describe. Whether a person decodes well or not, she can have difficulty visualizing the meaning of a phrase or passage.

• To strengthen this ability, read aloud to your students: a phrase, a paragraph, poetry, fiction, or a factual account. At first, do very short segments.

“’I’ve found that reading comprehension was one of the greatest problems my students faced. They couldn’t seem to process what they read. But when I read to them, they could visualize the story.’”

—Charlene Feuchtinger

• Ask them to transfer the words into a mental picture. You may have to help with this at first: “Describe what you ‘see.’ What is the woman wearing? What expression does she have on her face?”

• Model the process of visualizing and retelling. Work with your students to do this, helping them to link the mental image and the retelling.
Building on Prior Knowledge
There are several ways to teach students to build on prior knowledge. *Think alouds* (Gillet and Temple, 1994) and mapping (or webbing) are two strategies that are especially suited for adults with learning disabilities because they use several sensory channels.

**Think alouds:**

- **Teacher modeling:** A *think aloud* is taught quite effectively by the teacher modeling the thinking that accompanies active reading. Explain that you are going to demonstrate an activity that helps you to remember what you’re reading and to understand it better. As you read, connect to prior knowledge, guess, predict, and retell the story (thus far) out loud.

  *Example:* “Oh, this article is about diabetes! That’s what Aunt Barb has. I thought all you had to do was watch what you eat, but she says there’s lots more to it than that. I wonder if this article gives the latest information. It runs in our family, so I’d better learn what I can.”

  *(After reading a couple of paragraphs)* “Well, it’s explained the difference between types of diabetes, and I can tell that Aunt Barb has Type I. But, I didn’t know this! It sounds like I might keep from getting it, at least for a long time, if I keep my weight down. Hmm. I wonder if there’s anything else I can do.” *(reads on)*

  Teacher modeling will probably be most effective if it is done as an ongoing teaching strategy. Adults may find this a foreign concept at first and need to be reassured that this is what good readers do!

- **Guided practice as a group:** Explain that you’ll read a selection and periodically stop for them to retell the story so far. A different person may retell each time you stop reading.

- **Guided practice with a partner:** Both partners read a paragraph (or several), then one retells it to the other. Alternate between the two partners. Teacher monitors, helping as needed.

- **Independent practice:** As adult learners are encouraged to do this individually, they may be more comfortable talking just under their breath. Probably the more audible the practice is, the better, since more senses
are involved: speaking and hearing as well as seeing. In the next section, note that the K-W-L strategy is another take on “think alouds,” with the added sensory channel of touch, since the learner is writing.)

**Mapping (or webbing):** One tool; many uses! Mapping is an especially useful tool for any adult with LD. Not only is it useful in accessing prior knowledge for reading comprehension, it is an alternative way of taking notes in a lecture. Further, it is an organizational tool when preparing for writing or a research project. The following map was one actually done by a group of adult learners preparing to learn about AIDS.

The teacher, Margaret Lindop, drew the map as they discussed what they already knew (prior knowledge). In some cases, they put forth “knowledge” that was inaccurate, but these suggestions were recorded. After the map was complete, the teacher asked, “Are there other things that you would like to find out? Are there things here on the map that you would like to check on?” Those things identified were color coded as possible research questions.

As well as being multisensory (speaking, listening, writing, using a graphic), this strategy is quite versatile in its uses. This same activity could be a solid lead-in to reading an article or story about AIDS, to writing an essay relating to AIDS or making a plan for a research project. It could also be revisited after reading an article with the intent of checking for accuracy of information, correcting the map, and using it as a summary note for the article.

This map was done by a group of adult learners preparing to learn about AIDS.
Learning Strategies: The two strategies described here, RAP and K-W-L, are samples of many such learning strategies that assist memory, comprehension, approach to task, organization, and other facets of learning.

Before going further, let’s make a connection between chapters. In Chapter 3, Planning, we noted that five curricular options are suggested in Bridges to Practice: basic skills, critical content, social skills, self-advocacy, and learning strategies. Learning strategies, then, is an instructional priority for adults with learning disabilities. (See the section on Learning Strategies a bit later in this chapter.).

(Note: The following strategies for use in teaching critical thinking skills, reading skills, and math skills were written by Amanda Keller.)

4. Critical Thinking Skills

Teaching critical thinking skills with graphic organizers

Critical thinking skills are related both to reading and to activities in many aspects of life. If a student can master these skills, he or she will be able to apply them in various circumstances.

The critical skills can be taught with graphic organizers to help students visualize the steps in applying the skill. The graphic organizers help students to see how their brains must categorize and break down information in order to understand it. The organizers provide a scaffold from which to work until they internalize the skill.

This is a progressive and structured method of teaching critical skills. Students must master the basic skills in order to comprehend more difficult ones. Skills are taught directly and explicitly from the beginning, with the graphic organizers giving students a foundation on which to stand.
Gradually, as students begin to internalize the skills, the graphic organizer does not play such a vital role on paper. Instead, the student is able to “see” the organizer without the time-consuming act of constructing it. The teacher initially constructs the organizer for them and tells them when to use it. As they sharpen their skills, they construct their own organizers at my direction. Once the skill is internalized, the students must decide for themselves when they are being asked to call on a certain thought process, and they have the organizer as a tool if they choose to employ it.

Evaluation is crucial at every step and substep to determine a student’s level in this process. Mastery of each skill is dependent on a solid foundation and intensive practice. Success with more advanced skills is dependent upon mastery of the most basic ones.

**Steps to Follow in Teaching Critical Thinking Skills**

To help my students understand the skills, I teach them one skill at a time, beginning with the most basic ones. As they master each skill, we move to another, more difficult skill. The more basic ones are continually practiced as others are added.

I begin by explaining and discussing with the students the meaning of critical skills and why they are important to learn. We examine the meanings of the words *critical* and *skills* and give real-life examples of these words. If students can relate the term “critical skills” to something they already understand, they will remember the term and its significance to reading and other subjects.

I tell the students that we will learn the critical skills one at a time. I want them to understand that these skills apply in all contents, from GED
materials to materials they may see on the job. Then, instruction begins on each skill, following a consistent pattern. (With each of the critical skills discussed later in this chapter, examples of the following pattern will be illustrated.)

First, students learn the definition of a skill. They learn the concept of the skill by practicing it at a very basic level, perhaps even with words or symbols instead of actual sentences and paragraphs.

After evaluation of the basic level of understanding, students are introduced to the graphic organizer, or the “skill picture,” that accompanies the skill. Students work with the organizer until they know it well, and a color-coded, completely labeled, large version is posted in the classroom. Students spend a lot of time just becoming acquainted with the graphic and how it relates to the skill. By the time they are presented actual text to read, the concept of the skill and the understanding of the graphic are in place. Instructions at this level, as with all levels, should be explicit and clear and should be given visually and orally.

Gradually, the written material from various contexts gets more difficult, but the skill being practiced is the same. We move progressively from words to phrases/sentences to paragraphs and eventually to several paragraphs in one piece of writing. We practice our skill in various contexts, and students have time to make up their own examples of the skill. Very often, I ask them to bring in examples from their everyday lives.

After the skill is mastered, another is introduced, gradually working toward the more advanced skills. With each skill, a new graphic is added to the student’s repertoire, and any key words and ideas that accompany a skill are taught, as well. (I like to draw connections to the parts of speech whenever possible to help students see the link between English grammar and reading.) Once the foundation has been laid for reading comprehension, students begin to see how they can “work backwards” to write paragraphs and essays. The graphic organizer allows the student to map the skill on paper, and allows them to extend that critical skill to various contexts.
Examples of teaching specific critical reading skills are described below.

A. Main Idea and Details
When I think about critical reading skills, the first one that comes to mind is main idea and details. This is the first skill I teach my students, and it is one that they seem to acquire well. The main idea and details picture looks like this:

To teach main idea and details, I follow these steps:
1. In teams I ask the students to sort a large number of words into categories. An example of the word list might look like this:
   - fruit
   - apple
   - pear
   - banana
   - mango
   - school subjects
   - math
   - spelling
   - English
   - science
   - colors
   - red
   - green
   - orange
   - white

   I ask the teams to sort their groups. I give common examples and uncommon examples, such as mango, and words that could fit into more than one group (like orange). I have the students to group their words and then explain to the class why they grouped them a certain way.

   2. Then I ask the teams to decide which item in the list names the “big picture” or the main theme of the group. We do an example, using the graphic of placing the main idea in the top box and the representatives of the categories in the lower boxes, and we then label the graphic with the terms of main idea and details. The main idea is the one that
names the entire group, while the examples of each category simply explain a little more.

3. We experiment with removing certain components of our graphic, and decide which pieces we can remove and which one cannot be removed.

4. In the next phase, students repeat the process with sentence strips instead of words. Initially, the paragraphs they work with are ones I have written and cut apart. At first, I want the main idea to be obvious. The teams assemble the paragraphs, copy them onto chart paper, and read them aloud to the group. Invariably, each group will arrange their details in a different order under the main idea, and this provides a perfect opportunity to review the fact that details may be omitted or moved around, but the main idea cannot.

5. In the next phase, I ask students to look at controlled examples and color code the main idea and details. Then I have them transfer the components to a graphic organizer. At this point, I give them basic questions about the reading to help them understand how the reading skill is tested.

6. For level-one students, I progress them to another skill. For more advanced readers, I move to more advanced content and main-idea topics, such as finding the main idea in a short story or the main idea and details in a cartoon or bar graph.

Other Ideas for the Main Idea Graphic

- **Reading tables, charts, graphs, and diagrams:** The title or purpose of the illustration goes into the top box of the graphic, and facts from or about the illustration become the details.
- **Writing a paragraph:** Main idea is developed first, and then details are added to support it. I always use direct instruction to teach students to do this exercise before asking them to begin doing it alone.
- **Concepts in math:** Students can learn various concepts in math with this organizer. For example, we might allow the main idea to be 12 and then list all the ‘details’ that make up 12 (i.e., 3x4, 6x2, 6+6, etc.)
- **With more advanced students,** several main idea graphics can be sequentially linked to make an essay model.
B. Sequencing
The next skill we do is sequencing. The graphic for this skill is a sequence line. To teach sequencing, I follow these steps:

1. To begin this skill, I ask students to list five things they have done in the day.

2. I then introduce the sequence line and work an exercise with the class. We map our five events and discuss the concept of sequencing. We note that this line shows events as a section of time, and that this line has a “past” and a “future” that I cannot see.

A variation of this line would be:

In this picture, items have a definite beginning and end. This line would be appropriate for events that do not deal with the passing of time or events in history (e.g., steps in a math problem or following directions).

3. The next step for sequencing is to make a list of keywords that helps us to identify points on a sequence line, such as first, then, next, and last. (For students who know about the parts of speech, I tell them that adverbs go along with sequencing.)

4. I let students practice this skill with hands-on activities. At the most basic level, I have students make a number line or sequence the alphabet. Have them put words in alphabetical order and, after they have a list in place, add more words to see where they belong on the line. They can write out steps in a favorite hobby or recipe and sequence them. I usually have them work in teams at the early levels of the skill.
5. Give them events in a story and have them to put them in the correct sequence on a time line. Allow them to work in teams and, when they have finished, read their sequenced story to the class. From that point, have them write their own stories and map them on a timeline before having them to read written material and detect sequence. We also draw connections to English grammar by recognizing that words in a sentence are sequenced, that paragraphs in a story are sequenced, and that essays are sequenced in a certain way.

6. When students have mastered the skill, we look at example of various contents and different questions that ask for sequence. We also note the different ways to show sequence, (i.e., timelines, numbering, etc.) We look at pieces of material from all GED subjects and at sample questions. Students need to see the format of sequencing questions, so they will recognize when they are being asked to draw upon the skill.

Other Ideas for Using the Sequence Graphic

- **Order steps in a math problem:** Use a sequence line to show me how you solved a problem in math. Make up problems for classmates to solve and a sequence line to help them.

- **Make a sequence line for a specific event in history.** Use dates as markers on the line.

- **Make a sequence line for a story you have read.**

- **Conduct a science experiment and record the steps/results on a sequence line.**

- **Explain how to do something you do well.**

** For variations of the sequence line, see Appendix E.
C. Drawing Conclusions
The third critical skill I teach is drawing conclusions. The graphic we use for conclusions looks like this:

1. To teach students about conclusions, we play a game as a class. I give them clues to a certain person, event, or object; and they try to guess who or what I am describing. As I give them clues, I begin to construct the conclusions graphic, using small boxes for given facts and a large box for the “educated guess” they are to make. After some examples, I tell the students that the new critical skill is called drawing conclusions. It is also important to note that a series of facts can lead to more than one conclusion. I use the terms fact and conclusion to set up the examples, and I gradually make the clues harder. I explain to the students that this skill requires some “reading between the lines” and using information they might already know. We sometimes refer to conclusions as educated guesses and contrast them to wild guessing. After demonstrating many of these exercises, I ask teams to write their own clues and present them to the class, so the students can see me drawing conclusions, as well.

2. When they are ready to move to the written exercises, I ask them first to underline facts in the story as they find them. For some students it is hard to identify information that is important, so I ask them to look for nouns first. I also ask them to look for information that is repeated. I guide them through the steps in extracting facts at first. Some students find it helpful, especially in history exercises, to develop a habit of highlighting people, places, things, and dates in different col-
ors. The key for them is to consistently use the same color for each category.

3. Gradually we look for more complicated pieces of information, and the reading materials get more difficult. We look at questions that ask for conclusions so students will recognize when they are being asked to draw upon the particular skill.

I have found that conclusions are hard for some students. I try to deal with conclusions in math class, as well, with logic exercises and extra information problems. I have found that students seem to do better with conclusions if they (a) associate it with the idea of educated guessing and (b) see that they draw conclusions on a daily basis about things they do in their everyday lives.

D. Compare and Contrast
The final critical skill that I consider to be basic is the skill of comparing and contrasting. The graphic that I use to teach this skill is the Venn diagram.

To teach comparing and contrasting, I follow these steps:

1. I begin by establishing meaning for the terms compare and contrast. I do this by explaining and discussing with the class, and by using common examples, such as comparing prices at the store or comparing the qualities of dogs and cats.
2. I teach the students how to use the Venn diagram. We label each circle with one animal, and I tell them that the center region is reserved for common attributes of the two. I ask the students to give me characteristics of cats and dogs; and, with their help, I put them into the appropriate spaces.

3. In teams I have students create Venn diagrams for several examples. I have them present their diagrams to the group. I ask them to create their own examples to share with the group, as well.

4. The next step is controlled reading passages: Students must identify attributes of two subjects and extract the similarities and differences of the two. After having time to create a Venn diagram, first in teams and then individually, I ask them to explain to me. Students sometimes find it helpful to use highlighters to do this process, where similarities might be highlighted pink and differences blue.

5. Reading passages would get progressively harder with students’ mastery at each level, and the content would vary as much as possible.

Other Ideas for Using the Compare/Contrast Diagram

Use the Venn diagram to find common denominators. For example, if I need to find the lowest common denominator (or lowest common multiple of 10 and 4), I might develop such a Venn:

By listing some multiples of 4 and 10, I can see that 20 is the lowest common multiple.
Using Several Skills Together
Once we have learned basic skills, we do exercises that pull on several skills at one time.

- Have the students read a paragraph where the details are sequential. We might construct a graphic like this one:

![Diagram showing a Venn diagram with connected, intensive, generalizable, and enduring concepts]

- I give students a completed Venn diagram and ask them to write a main idea sentence or draw a conclusion based on the facts in the Venn.

- I teach the students that the graphics will help them organize writing, as well. Depending on the type of writing they need to produce, they can select the appropriate graphic, fill in the spaces with information, and transfer that information into sentence/paragraph form. Other students can use the same graphic to understand what they have written.

Once students have mastered main idea, sequencing, drawing conclusions, and compare/contrast, they are ready to progress to more difficult skills. Each skill has an accompanying graphic, and students begin to develop a “toolbox,” and find uses for their tools in ways that surprise me! They soon learn that the toolbox can travel with them to other classes, to work, and to their homes.
The graphics help to shape the way they think about certain problems they encounter. The organizers give students a concrete strategy on which to rely when they are “stuck” on a test question. My job in the classroom is not to teach them to decipher one particular piece of material. My goal is to teach them the skills that are necessary to decipher any piece of material by being able to recognize when a particular skill is called for and how to use that skill to understand and answer the questions at hand.

(See Appendix E for a complete set of reproducible graphic organizers and suggestions for using each one.)

5. Fundamental Principles of Teaching Math

First, concepts must be established at the concrete level. Before students can understand the abstract symbolism of math, they must understand the concepts that underlie theory. Those concepts must be taught concretely if students are to understand abstractions. Second, algorithms and math processes, in most cases, are best taught with direct instruction.

To teach math concepts, I always begin with the concrete and work toward the abstract. For example, if I want students to understand the definition of a fraction, I begin with hands-on examples. I follow these steps to teach the concept of a fraction:

1. Students sort items in teams according to their similar attributes. In our class, we use colored building blocks in four colors (red, green, blue, and yellow) and in various rectangular sizes. Teams are given a large pile of blocks sorting however they see fit. (Each team has an identical set of blocks to begin, and we count the blocks before we begin to sort them.) Some sort by colors and some by shapes, but they inevitably sort items into logical groups. We discuss as a group how they sorted and why they chose to sort the way they did. (*Another item that sorts easily by color is M & M’s®, but I, as the teacher, cannot control the examples if we use prepackaged candy.) We sort other items before moving along, and I ask students to tell me where they use sorting in their daily lives.
2. In the next step, I give the teams a set of blocks that are identical in size but different colors.

• I ask them to sort by colors (red, green, blue, and yellow). We label the group of blocks with the mathematical term set. We talk about other things that come in sets. We relate our blocks to something in real life. For instance, I might ask the students to imagine their blocks are cupcakes for a party. Each cupcake is the same size, but there are different flavors. Each flavor or color is one part of the whole group.

• I then ask the students to put their blocks together to make one continuous region. We label with the term region and contrast region and set. I ask them to imagine that this region is a cake with different flavors in one cake. Part of the cake is lemon (yellow), part is strawberry (red), and so on. After discussing how difficult it would be to produce such a cake, we decide how many pieces of each flavor there would be.

• I ask the students to consider the set again, and I have them tell me the total number of “cupcakes” we have to work with. Then I ask them to tell me how many cupcakes are strawberry. I then tell them that I can write a fraction to show the strawberry cupcakes. The bottom number will tell me how many cupcakes I have in all, and the top number tells how many meet a certain condition, which in this case is strawberry flavor. We then look at the region, and do the same thing, and the students see that for this group of blocks, it does not matter if they are in a set or a region, the fraction of red is the same.

• Then I introduce the math terms numerator and denominator and apply them to the example, respectively. We write a fraction for each of our colors and note that the denominator does not change, because the number in the original group has not changed.

• We then alter the total number and look at our fractions again, labeling numerator and denominator.

• Finally, I remove the manipulatives and, giving only a symbolic rep-
presentation, ask the students to interpret the fraction for a given example.

• More examples and opportunities to practice follow, and I ask students, as homework, to bring me an example of real-life fractions. I review the concept with them frequently.

When teaching students to perform a particular algorithm, I use the Direct Instruction Model.

1. I set up the lesson by reviewing concepts (like the one outlined above). The concepts should be in place before algorithms are introduced, so this step should involve recalling concepts. This is a time to recall any relevant skills that have been previously learned. Clearly label the algorithm to be learned, and set goals for the lesson before it begins. Engage all students at this point, and draw some connection to real life situations, as well.

2. The instruction in the new skill involves modeling in four parts. Responsibility for performing the skill gradually shifts from teacher to student. I often use manipulatives in these steps.

• In the first phase, I, the teacher, do the work. Students watch me work and listen to me talk myself through the steps. (This is called a think aloud.) Students should be aware of the fact that they learn a lot by watching and listening. Writing and doing page after page of examples is not where true learning takes place. Students watch and listen only.

• In the second phase, students add one more sensory action to the mix—they talk me through the examples. They still do not write, but they tell me how to do the example.
• In the third phase, students pick up their pencils and we talk through the examples together. They work on paper, and I work on the board. We discuss each step before anyone writes.

• In the fourth phase, students are given examples to try on their own with my help if needed. Then we discuss their examples, and I encourage them to go to the board to work their problems. This builds confidence and self-reliance, and it also gives me a chance to make the point that mistakes are nothing to be ashamed of.

3. Once the students can complete phase four on their own, I give them some guided practice to be done in class. This is the working development of the skill; it is not the learning of the skill. I am satisfied they know the skill before I give them any workbook pages. The guided practice is a chance to sharpen the skill with help as needed. This is a good time for cooperative learning and real-life generalizations. I often give word problems to teams in this step.

4. Closure of the lesson is important. The students need time to recall the rules and procedures they have learned and to talk about the examples they have done. We might do one more, aloud or on paper, and review any important steps they have learned. When students have learned how the direct instruction model works, they begin to understand that closure indicates the end of this skill. It allows them to mentally end one skill before trying to learn another while, at the same time, storing away the learned skill for future reference.

5. When I am confident they can perform the skill on their own, I give them independent practice, which often takes the form of homework. I might give them twenty-one problems with instructions (written and oral) to do—only three problems each day. Sustained, short practice sessions are good for enduring review, and they are also less overwhelming for students.
Other notes regarding teaching critical math skills:

• For each math section, I require my students to keep a notebook. I help them set up a three-ring binder, and I consistently remind them to correctly organize their materials. They learn organization skills, and they have a reference book in their own words and handwriting on which to rely if they need to review something. The notebooks also serve as a portfolio assessment of sorts, and students can see their progress as the notebook is completed.

• I often ask students to write their own word problems to share with the class. I ask them to “teach” the class if they would like. A student who wants to teach can tell me in advance, and I work in time for that student to teach a mini-lesson to the class, provided that I have seen the content first. Students who do this are learning several valuable skills, such as planning ahead and being prepared. They also get experience in speaking in front of a group.

• The manipulatives that we use in class are always in the classroom. Students have access to them when they need them. I have seen students go to the manipulatives when they are stuck on a problem. Sometimes they know the algorithm, but the concept behind a word problem is unclear. The manipulatives can help them to work through the problem concretely. Once they are familiar with the manipulatives, they will often go there before asking for help.

(See Appendix F for Direct Instruction Model and Appendix H for detailed lesson plans using direct instruction for math.)

6. Building Self-Advocacy Through Writing Activities

The idea of “standing up for yourself” is at the heart of self advocacy. Here are some open-ended questions you may want to use as you encourage your students to think about advocating for themselves. These can lead into discussion, then writing.

• Think of a time when you stood up for yourself and tell us about it.
• Think of a time when you wish you had stood up for yourself. What
would have happened if you had?
• Think of some situation in your life now in which you’d like to stand up for yourself. Write about it.

Helping Students Develop Self-Advocacy
Through the Use of Direct Instruction
When students enter adult education programs, they often struggle with issues of self-advocacy. Many of them have developed a poor self-image and have little confidence in their own abilities to make decisions and to speak out on their own behalves. Adult education classes can help students learn to be self-advocates. They can learn to speak up for themselves and to be comfortable with their decisions.

The Direct Instruction Model lends itself well to building self-advocacy. The model allows for gradual shift of responsibility on a skill-by-skill basis. Over time, as their skill and self-esteem build, students become more comfortable in their own abilities to make decisions. The skills they have learned allow them to make decisions in academic situations, but the confidence they develop supports real-life decision making.

• In the Direct Instruction Model, students begin a skill with no pressure on them to perform. They learn to take time and assess a situation before taking any action. The responsibility is on the instructor to perform. Students develop a plan mentally before being asked to take any action.

• When students begin to talk through their thoughts, they are beginning to take responsibility for the learning. Emphasis is on talking about the plan before taking action. The opportunity is there to question and reason through ideas without the pressure of having to perform unscaffolded.

• When students begin to write down their thoughts, their responsibility grows. However, it is still supervised and guided. They are gaining the confidence they will need to succeed at the skill.
• When the time comes for the students to perform on their own, they are eager to prove to me and to themselves that they can practice the skill. There is satisfaction in knowing that a new skill has been added to that never-ending skill bank. Self-esteem begins to grow, one skill at a time.

• Direct instruction is a highly organized, structured method of teaching. Students learn quickly what to expect, and they can depend on the pattern to carry through each lesson. They learn to organize themselves around this model, and the organization carries over into other areas as well. When they become organized, they feel more comfortable making decisions.

• Direct instruction works very well for adults with learning disabilities. I do not keep this fact a secret. We discuss as a class the definition of a learning disability, and students begin to accept the idea that a learning disability is not a reason to give up. There are things that can help. We discuss the fact that the way we do our lessons will help make the learning disability easier to manage. Students become as comfortable with the term “learning disability” as they do with “fraction.” It is a part of our class, whether we like it or not, and the way to deal with it is to not brush it under the rug. Students work together to help each other overcome their individual needs, and this begins to facilitate confidence in groups. It also helps students to talk about their learning disabilities without feeling ashamed.

• Direct instruction allows for multisensory input. Students become aware of how their senses are involved in their learning. They begin to utilize their senses in other aspects of their lives. They begin to use their voices more, to ask questions when they need answers, because they are used to doing this in class with no discomfort. They also become aware of other ways to get information. Reading is not the only way to find needed information, and the direct instruction opens their eyes to different kinds of input.

• I try to encourage students to speak in the group as much as possible. I never force them to do it, and I find that very quickly most students want to do it. They see their classmates do it without stress, and they soon are willing to try. Mistakes are corrected, but in a positive way. I
allow students to see and comment on my own mistakes, intentional or not, because they need to see me, their teacher, make mistakes and, more important, react to them. When they begin to understand that mistakes are not bad things, they are less concerned about making them and more focused on learning new things.

- Direct instruction not only provides a nonthreatening environment for learning new skills, it also provides a safe way to practice them. Students can work on their newly acquired skills before leaving to practice them alone. They can make mistakes, ask questions, and hear answers before going home with a workbook page to do. They also learn in the classroom what works for them and what does not. When they go home to do independent practice, their study sessions are simply an extension of an already successful experience.

Students who are successful in the classroom blossom into adults who become successful in other places. Development of self-advocacy skills is a slow process. It is a process that must be planned and implemented with consistency and predictability. It took me a while to learn that my job as an adult educator is not simply the teaching of academic concepts. Students will develop a self-image in my class, and it is my job, to the best of my ability, to see that they develop a positive one.

7. Learning Strategies: Learning How to Learn

We are teaching students how to learn. Ideas drawn from the PBS Teleconference, Serving Adults With Learning Disabilities: Implications for Effective Practice (2000), in which Dr. Patricia Anderson outlined best practices for LD instruction and suggested the following strategies that can be applied across learning situations:

- Listening
- Paraphrasing
- Test-taking
- Error monitoring
- Paragraph organization
- Memory strategies.
• Ask learners which strategies work for them and have them share ideas with each other. When a strategy comes from them, they are more likely to remember and use it.

• Engage learners in learning processes, not just the content. For example, if a student believes her message is important, she’ll have more interest in revising her writing so that it’s clearer to others. The writing process, thus, has more meaning to her.

• Teach methods to enhance the storage of information:
  — Categorizing information by function, alphabetical order, or size
  — Comparing new information with known information.

• Teach methods to enhance memory:
  — Visual imagery
  — Clustering or chunking information into smaller units
  — Mapping
  — Color-coding
  — Verbal rehearsal.

• Teach methods to enhance the retrieval of information.
  — Visual imagery
  — Word or idea association
  — Color coding
  — Verbal rehearsal
  — Imagery or dramatic pictures
  — Setting ideas to music
  — Mnemonics, such as the paraphrasing strategy, RAP, described earlier in this chapter.

• Elicit feedback from and provide feedback to students.

Many adults with LD do not have an accurate picture of how they are performing on a particular task. Providing immediate and frequent feedback about the quality and appropriateness of work completed—including practical suggestions for revising or refining that work—will help them accurately evaluate and monitor their progress.
Reflections

—by Margaret Horne Lindop, Editor

Hopes and Challenges
Those of us who contributed to this publication have done a lot of talking and thinking about the issue of learning disabilities. The experiences and reflections of the action research teachers were especially important, since they came from the living laboratories of their classrooms.

Some experiences energized them, affirming that they were “on the right track,” as they
• gained deeper understanding of a student’s struggle with reading and spelling,
• documented red-flags for possible learning disabilities during the screening process,
• worked with a student to discover her real needs and goals, and used strategies and tools that helped a student “get it” for the first time.

Other experiences frustrated them, raising questions as to how to implement Bridges to Practice, given some of the characteristics of the program in which they teach: inconsistent attendance of students, open entry/open exit programs, and multilevel classes. Many adult education classes face similar obstacles.

Promising Practices
We have seen some promising practices that we’d like to share with you.

To address adult-learner retention:
• Have an orientation for the opening course in adult education. Work intensely with learning skills and strategies, goal setting, and self-advocacy.
• Work for strong coordination of adult services: adult education programs, Temporary Assistance for Needy Families (TANF) agencies, One-Stop Career Centers, Vocational Rehabilitation, community colleges, and others, so that adults with undiagnosed LD are identified, diagnosed, and supported in reaching their potential.
• Consider short-term (6 – 8 weeks), closed-enrollment classes with specified goals. Anecdotal reports from teachers and learners in such
programs suggest that this practice has great promise! Attendance improves and goals seem to have more meaning when each session counts in a structured course with a syllabus.

To address adult educator/teacher retention:
• Work for creative ways to create full-time positions. While such positions are still the exception rather than the rule, more full-time positions exist than a few years ago. Some adult education programs are combining several part-time positions to make one full time position. Other programs are making a strong case for full-time AE teachers to their school systems.
• Be aware of federal and state funding efforts that support adult education.

To address the delivery of LD-effective instruction:
• Work for intensive LD training for all literacy/adult education practitioners.
• Work with volunteer groups that partner with adult education programs. Trained volunteer teaching assistants can provide small-group instruction that is intensive and systematic, ensuring mastery at each step.
• Consider short-term, closed-enrollment classes in which particular content and learning strategies are taught intensively.

At the end of this project, however, we were reminded again—in no uncertain terms—how essential it is that we work not only in the classroom, but for systemic change. If we are to honestly address learning disabilities in the adult population, we must examine what we are doing—and failing to do—at every level in adult education classrooms and programs; in the workplace; across agencies; and in county, state, and federal legislatures.

We invite you to join us and others at these meeting places of LD information and conversation:

NIFL's Literacy and Learning Disabilities Special Collection of Online Resources<br>http://slincs.coe.utk.edu/special_collections/learning_disabilities/<br>—Coordinated by Margaret Lindop, Editor, Keys to Effective LD Teaching Practice, and Coordinator of the LD Action Research Project.

LINCS LD Discussion Group<br>http://www.nifl.gov/lincs/discussions/nifl-ld/learning_disabilities.html
Bibliography

Print Resources

“Accommodations by Functional Need” (pp.120-124) in Accommodating Adults with Disabilities in Adult Education Programs, 1998, University of Kansas Center for Research and Learning.

“Compendium of Materials and Resources” (pp. 227-255) in Accommodating Adults with Disabilities in Adult Education Programs, 1998, University of Kansas Center for Research and Learning.


Bibliography


Web Resources

Chapter 1

http://sllincs.coe.utk.edu/special_collections/learning_disabilities/
This collection of resources provides a single point of access to information on LD issues important to adults with learning disabilities, their families, literacy practitioners, and others who work with adults.

http://www.ldonline.org/id_indepth/abilities/index.html
Find out about the special ABILITIES of people with dyslexia.

http://www.ldonline.org/first_person/first_person_archives.html
Life Stories of Adults with LD.

http://www.ld.org/livingwithld/index.cfm
Read about struggles, successes, and tips for living with learning disabilities.

Chapter 2

http://www.cal.org/ncle/ResLD.htm
ESL Instruction and Adults with Learning Disabilities.

Chapter 3

http://www.nifl.gov/lincs/collections/eff/eff.html
Equipped for the Future Special Collection Website: Role-maps, publications, and many other resources.

http://www.nifl.gov/lincs/collections/eff/eff_publications.html
The premier issue of Hot Topics focuses on the goal-setting process, with teachers, tutors, and learners sharing how they use the EFF Framework and mind maps to define goals. Also included is a full-page reproducible copy of an effective goal-setting tool.

http://www.ldonline.org/id_indepth/teaching_techniques/strategies.html
Teaching Strategies and Techniques: Articles to be downloaded.
http://www.ku-crl.org/htmlfiles/lscurriculum/lsdescription.html
Learning Strategies.

http://www.ldonline.org/first_person/first_person.html
Self Advocacy.

Chapter 4

http://www.ldonline.org/ld_indepth/reading/reading.html
Articles on reading methods used to teach people with reading disabilities.

http://www.ldonline.org/ld_indepth/reading/mssl_methods.html

http://www.ldonline.org/ld_indepth/reading/reading_methods.html

Video Resources

Chapter 1

Appendix A
Screening for Adults with Learning Disabilities

The Role of the Practitioner in the Assessment Process

Summer 1995

Contents

- Overview of the Assessment Process
- Consulting A Qualified Professional
- SCREENING
  - 1. Vision/Hearing and/or Auditory/Visual Processing Problems
  - 2. Academic Performance
  - 3. Behaviors/Psychological Manifestations
- Other Means of Information-Gathering
- REFERENCES

Overview of the Assessment Process

Thousands of adults in literacy programs fit the following description. They are individuals who appear to be able and bright. They have worked diligently for a year, sometimes longer, to learn to read to improve comprehension skills, to improve their writing and spelling, or perhaps, to improve work skills. Yet, they make little, if any, progress. Could any of these individuals be having learning problems because of a learning disability?

Practitioners need informal measures for determining whether or not a particular learner may have a learning disability. Given that most participants in literacy programs are unable to afford formal testing administered by trained professionals, the information gathered by the practitioner can be particularly valuable for planning a practical approach to helping the individual meet realistic goals. In fact, the information gathered through an informal process can be as useful in planning instruction as scores from standardized testing.

The process of identifying an individual who may have a learning disability begins with a simple screening. This screening process cannot alone be used to diagnose the individual’s situation. This step of gathering relevant information can be accomplished through observation, interviews, self-reporting, the use of a screening tool (a brief test and/or written answers to questions), and through a review of school, medical, or employment records. With this information in hand, the screener - typically an individual who does not have a specialized background in learning disabilities - plans and executes an individualized program for the learner, often after consulting with a qualified professional or professional organization on how to proceed. The information gathered through the screening process can also be a valuable introduction to the formal process of assessment.

Consulting A Qualified Professional:
If it is determined through screening that there is a strong possibility that the individual has a learning disability, a **formal assessment** can be undertaken. A formal assessment is carried out by a professionally-trained educational diagnostician, counselor, psychiatrist, or psychologist who selects, administers, and interprets different kinds of **tests** (educational, vocational, psychological, and neurological instruments) from which a **diagnosis** and **recommendations** are made. It is through a comprehensive assessment that an individual's current level of development is identified and a plan for meeting the individual's needs is developed.

While the literacy practitioner may be neither prepared nor qualified to diagnose an individual with a suspected learning disability, the practitioner can play a valuable role in getting the assessment process set in motion. The qualified professional may first refer to the screening in order to plan which tests to administer. Or, if formal assessment does not follow, the practitioner's screening results become one of the most important sources for developing a plan to help the individual with suspected learning disabilities achieve his/her goals.

---

**SCREENING**

Screening is an initial step in the process of gathering pertinent information about the individual with a suspected learning disability. The literacy practitioner can attain much valuable information if s/he knows what to look for. In terms of academic performance and related behaviors, what kinds of **observations** will the literacy practitioner be noting? The following characteristics tend to be displayed in varying degrees by individuals with learning disabilities. The lists are a good sampling, but, of course, are not all-inclusive. Making written notes of these observed characteristics, as well as collecting written samples of the learner's work, is very valuable to the screening process.

**Does the individual show unexpected underachievement, but demonstrates evidence of at least average ability in some intellectual or social areas?**

**Does the individual display signs of poor vision or hearing? Or, are you observing the effects of auditory or visual processing deficits?**

**In terms of academic performance, is the individual having problems in the following areas: Reading (oral and silent), Expressive Language (writing, spelling, handwriting), Math?**

**Are you observing behaviors/psychological manifestations that can interfere with the learning process?**

To help the literacy practitioner think through the answers to these questions, three broad areas of learning-related problems are briefly described below.

**1. Vision/Hearing and/or Auditory/Visual Processing Problems**

If vision or hearing problems are suspected, it is important that the individual be examined by an eye (optometrist) or hearing (audiologist) specialist. It may be determined that there is a physical problem, leading to prescribed eye glasses or a hearing device. Many individuals with learning disabilities have poor eye muscle coordination for focusing and refocusing at close range, have had hearing problems since early childhood that have affected their ability to learn, and may also have auditory and visual processing and memory problems.
Barring a purely physical cause, the following problems can be considered indicators of a possible learning disability:

- Eyes water and/or become red after a short time of work
- Complains of tired eyes; rubs eyes a lot
- Puts head on desk to read
- Oral reading is choppy: words skipped, endings left off, frequent repetitions
- Loses place when reading
- Talks loudly
- Often asks you to repeat yourself
- Comments about getting headaches after a short time working at reading or writing
- Squints and peers close to see print
- Peers at work on desk from an angle
- Lifts eyes from page frequently to glance around
- Closes one eye while reading or writing
- Misunderstands you
- Turns an ear towards you when you speak

2. Academic Performance

Reading: The learner shows marked difficulty in oral and silent reading.

- Reading patterns are slow and deliberate
- Skips words, re-reads lines in oral reading
- May substitute, delete, add or transpose letters and syllables
- Loses place on page
- Avoids reading out loud
- Reads words or syllables backwards; e.g., was for saw, net for ten
- When reading silently, appears to be re-reading or reading very slowly (this can be attributable to poor visual processing)
- Cannot use basic phonics to sound out words
- Reads with an overdependence on guessing and, as such, comprehension is compromised, evidenced in errors in answering questions related to the text
- Reading style is halty and jerky

Expressive Language: (Writing, Spelling, including Handwriting Skills)

- Problems with grammar and syntax
- Writes letters or numbers backwards or upside down, e.g., b for d, p for q, u for n, M for W
- Spells words differently in the same document
- Weak visual memory for spelling
- Spells phonetically, cannot remember spelling patterns, e.g., Munday, Toosday, Winsday, Thirsday
- Writing reveals poor organization
- Inconsistent memory for sentence mechanics
- Reverses letters in spelling, e.g., Friday becomes Firday, girl becomes gril
- Mixes capital and lower case letters inappropriately, e.g., SunDay, MoNey
- Poor handwriting; letter formation inconsistent
- Punctuation errors are common
- Continuously whispers to self while writing
Math:

- Trouble remembering math facts and procedures
- Demonstrates inconsistent mastery of math facts (addition/subtraction, multiplication/division) due to problems with long-term memory
- Difficulty copying numbers and working with numbers in columns
- Trouble with left/right orientation
- Cannot remember in which direction to work in carrying out simple math
- Confuses similar numbers or transposes numbers
- Reads numbers backwards, e.g., 18 for 81, 21 for 12
- Trouble following sequential procedures and directions with multiple steps

In terms of academic performance, what practitioners/instructors are looking for are **patterns of errors** exhibited by the student's work. Error patterns are important in helping to differentiate between the adult with possible learning disabilities and the adult whose low achievement is the result of other factors. Therefore, it is important that practitioners familiarize themselves with typical error patterns.

3. Behaviors/Psychological Manifestations

The following behaviors may indicate the possibility of a learning disability if observed over a considerable period of time.

**Attention:** difficulty concentrating/focusing; easily distracted; difficult sitting still/ restless; displays off-task behavior; lack of productivity; seemingly confused at times; fidgets; impatient; talks excessively; impulsive (acting without thinking and without seeming concern for consequences, saying one thing and meaning another, blurts out answers, interrupts); displays memory problems

**Organization:** poor organization of physical environment and time, as well as concepts and tasks, including sequencing, prioritizing, grouping or categorizing, grasping similarities between items, relating parts to the whole; orientation problems/difficulty with directionality: left/right, up/down, and north/south/east/west

**Other General Behaviors:** variable or unpredictable performance; difficulty absorbing major ideas from an oral presentations (instructions, lectures, discussions); information must be repeated and reviewed before understanding is achieved; problems with following directions; difficulty retaining information without excessive rehearsal and practice; cannot recall familiar facts on command, yet can do so at other times; visual difficulties, auditory difficulties, poor decision-making skills; difficulty drawing conclusions, making inferences, dealing with abstractions; poor motivation and/or extreme drive to complete a task; most comfortable with familiar, unchanging settings; perseveration (staying on task or using a procedure past the point of its being appropriate); rigidity

**Social:** social situations difficult, noticeably out of place in group setting; misinterprets what others say, tone of voice, facial expressions, the subtleties in social situations; lacks awareness of one's personal space; difficulty in establishing friendships

It is important to note that many of these observed learning characteristics and behaviors result from problems that the individual experiences in the areas of **visual discrimination** and **visual memory**, as well as **auditory discrimination** and **auditory memory**. Visual discrimination refers to the learner's ability to detect differences in forms, letters, and words. Visual memory is concerned with the individual's ability to retain a full mental image of what s/he has seen. In both instances, the central
nervous system is not processing symbols correctly. Auditory discrimination involves the ability to recognize the differences between sounds. Auditory memory refers to the learner’s ability to store and recall what has been heard. The result of an auditory deficit is that the individual fails to hear vowel or soft consonant sounds in spoken words. **Auditory and visual deficits** affect one's ability to develop and use language effectively; the effects are apparent in reading, writing, and spelling skills.

**Other Means of Information-Gathering**

Samples of the learner's work and observations of the individual's learning characteristics and behaviors can be recorded on an **observation checklist**. In addition, the information-gathering process can include (1) **reviews** of school, medical, and employment records (wherein patterns of problems may be evident and should be noted); (2) a **screening interview** during which the individual can be encouraged to self-report problems in academic, social, medical, and employment areas, including similar information about family members to help determine possible familial factors known to correlate with learning disabilities; (3) a **screening questionnaire**; and (4) a **screening tool** (an instrument for which the administrator should be trained to use). For excellent examples of an observation checklist and a screening questionnaire, see the Learning Disabilities Association of Canada (LDAC) publication listed under "**References.**"

For samples of screening tools, see the Tennessee Literacy Resource Center's publication, listed in "**References.**" Operating under a grant from the U.S. Department of Education and working with Tennessee educators, the Tennessee Literacy Resource Center, University of Tennessee Knoxville, established a research project that reviewed a variety of screening tools used for "identifying and helping adults who find learning difficult," reporting strengths and limitations of each tool.

Heading the list of the Tennessee Literacy Resource Center's recommendations for screening incoming literacy participants is "Informal Observation and Work Samples." The research group found that careful observation was so valuable to the assessment process that it recommended training to sharpen the practitioner's observation skills. "After careful observation, and using a checklist or other documentation, we were able to talk with students about how they learn, the strategies they use, and their preferences, in a much more focused and productive manner." Obviously, the literacy practitioner is in a position to make valuable input into the assessment process.

While formal testing provides the most accurate basis for planning an individualized learning program, the observations noted in the informal screening process serve a number of purposes:

- Screening sets the stage for the practitioner to help learners with suspected learning disabilities to understand their strengths and weaknesses and the reasons behind their struggles and difficulties.

- The informal nature of the information gathering process in screening enables the practitioner to include the learner in determining appropriate instruction.

- Informal screening opens the door for discussion between the practitioner and the learner regarding which strategies and/or interventions, if any, have been tried in the past.

- Screening can help establish the foundation for discussion between the practitioner and the learner about realistic long-range goals translated into short-term objectives.

- Screening helps the practitioner identify special materials and strategies to be used in setting up an individualized learning situation for the student.
For follow-up, the practitioner needs to be aware of local sources of testing and other services to which the learner can be referred. The adult education/adult literacy program/literacy council with which the practitioner is aligned should have a list of recommended resources. Depending on the particular locale, these resources may include (1) the State Vocational Rehabilitation Agency, (2) community mental health agencies, (3) special education departments, disability support services offices, counseling, and study skills centers at universities or local community colleges, (4) educational therapists or learning specialists in private practice, (5) Orton Dyslexia Society, (6) the local chapter of Learning Disabilities of America (LDA), (7) private schools or institutions specializing in learning disabilities, and (8) university affiliated hospitals.

Literacy practitioners can be a vital link in the overall assessment process. If the individual with suspected learning disabilities does not undergo a complete assessment, informal screening provides the major source of information for establishing both long-range goals and short-term objectives, and for identifying instructional methods and materials needed to establish an individualized program that meets the learner's needs.

REFERENCES:


White, C. (Ed.) (1994). If only I could ...Read Write Spell: Identifying and helping adults who find learning difficult. Knoxville, TN: Center for Literacy Studies, University of Tennessee. (615-974-4109)

This material has been prepared under a cooperative agreement between the Academy for Educational Development (AED) and the National Institute for Literacy (NIFL), Grant No.X257B30002. Opinions, findings, conclusions and recommendation expressed herein do not necessarily reflect the views of AED or NIFL. This information is in the public domain, unless otherwise indicated. Readers are encouraged to copy; please credit the National ALLD Center.
Appendix B
Analyzing My Learning
Strengths and Struggles

Strengths / Abilities
What am I good at doing or enjoy doing?

<table>
<thead>
<tr>
<th>Relating to people</th>
<th>Relating to animals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizing</td>
<td>Budgeting</td>
</tr>
<tr>
<td>Music</td>
<td>Reading and writing</td>
</tr>
<tr>
<td>Art / Drawing /</td>
<td>Sports /gymnastics</td>
</tr>
<tr>
<td>Cooking</td>
<td>Math</td>
</tr>
<tr>
<td>Science / Nature</td>
<td>Understanding myself</td>
</tr>
<tr>
<td>Building or repairing things</td>
<td>Woodworking</td>
</tr>
<tr>
<td>Solving problems</td>
<td>Sewing / Crafts /Decorating</td>
</tr>
<tr>
<td>Teaching someone to do something</td>
<td>Using a Computer</td>
</tr>
<tr>
<td>Dancing</td>
<td>Other?</td>
</tr>
</tbody>
</table>

Health / Medical /Family Factors that might affect how I learn.

I have had

_____ Hearing problems / ear infections
_____ Vision problems
_____ Speech or language difficulties
_____ Allergies
_____ Coordination problems
_____ Trouble sitting still or sticking with a task
_____ Depression
_____ Anxiety
_____ Drug or alcohol problems
_____ Other serious health problems ___________________________

______________________________

_____ Others in my family have difficulties reading or doing math

1
Vision / Hearing

____ My eyes water and/or become red after a short time of work.
____ My eyes get tired easily. I rub my eyes a lot.
____ I put my head on the desk or table to read.
____ When I read out loud, I skip or repeat words. I leave off endings.
____ I lose my place when I read.
____ I get headaches after just a short time reading.
____ I squint and have to look close to see print.
____ I have to look up from the page often when I read.
____ I close one eye when I read or write.
____ People say I talk loudly.
____ I have to ask people to repeat what they said.
____ Sometimes I misunderstand or miss what people say.
____ I turn one ear toward the person speaking so I hear better.

I also notice

Pages 2-7 were adapted by Margaret Lindop, the Center for Literacy Studies, The University of Tennessee, 1999, from Screening for Adults with Learning Disabilities: the Role of the Practitioner in the Assessment Process, National Adult Literacy and Learning Disabilities (ALLD) Center, Summer, 1998
Reading

_____ I read slowly.

_____ When I read aloud, I skip words and/or re-read lines.

_____ I substitute, leave out, add, or mix up letters or parts of words.

_____ I lose my place on a page.

_____ I avoid reading out loud if I can.

_____ I read words or parts of words backwards: 
  e.g. was for saw, net for ten.

_____ When I read silently, I re-read or read very slowly.

_____ I have a hard time “sounding out” words.

_____ I guess a lot when I read.

_____ I read in a kind of jerky, uneven way.

_____ I find it hard to draw conclusions or “read between the lines.”

I also notice

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Pages 2-7 were adapted by Margaret Lindop, the Center for Literacy Studies, The University of Tennessee, 1999, from Screening for Adults with Learning Disabilities: the Role of the Practitioner in the Assessment Process, National Adult Literacy and Learning Disabilities (ALLD) Center, Summer, 1998.
Writing and Spelling

_____ I have problems with grammar.

_____ I write numbers or letters backwards or upside down, e.g. b for d, p for q, u for n, M for W.

_____ I spell words different ways in the same piece of writing.

_____ It’s hard to spell because I can’t remember how words look.

_____ I spell words the way they sound.

_____ Sometimes I remember to put a capital letter at the beginning of a sentence and a period or question at the end. Sometimes I don’t.

_____ I reverse letters in spelling, e.g. Firday for Friday, gril for girl.

_____ I write capital and lower case letters in the same word, e.g., SunDay, MoNey.

_____ Handwriting is hard. When I’m writing, it’s hard to make my letters all the same size or control the way I write them.

_____ I make a lot of mistakes with punctuation: periods, commas.

_____ I whisper to myself when I write.

_____ It’s hard for me to organize my thoughts when I write.

_____ It’s hard for me to organize my thoughts enough to take notes when I’m listening to a speaker.

I also notice

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Pages 2-7 were adapted by Margaret Lindop, the Center for Literacy Studies, The University of Tennessee, 1999, from Screening for Adults with Learning Disabilities: the Role of the Practitioner in the Assessment Process, National Adult Literacy and Learning Disabilities (ALLD) Center, Summer, 1998.
Math

____ I have trouble remembering math facts and procedures.

____ I can remember math facts (adding, subtracting, multiplying, dividing) one day, but I may not remember them the next day.

____ I find it hard to copy numbers and work with numbers in columns.

____ I get left and right mixed up.

____ When I’m working a math problem, I can’t remember which direction to go.

____ I confuse similar numbers, e.g., 6 and 9, 2 and 5 or I turn numbers around when I write them, e.g., 691-8512 for 961-8215.

____ I read numbers backwards, e.g., 18 for 81, 21 for 12.

____ It’s hard to remember the steps in math problems: e.g., in renaming (carrying and borrowing) or in long division.

I also notice

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Pages 2-7 were adapted by Margaret Lindop, the Center for Literacy Studies, The University of Tennessee, 1999, from Screening for Adults with Learning Disabilities: the Role of the Practitioner in the Assessment Process, National Adult Literacy and Learning Disabilities (ALLD) Center, Summer, 1998.
Other factors that can affect learning

Attention

_____ I have trouble concentrating / focusing.

_____ I’m easily distracted.

_____ I’m restless. It’s hard to sit still.

_____ I’m impulsive. I don’t think before I act or say something.

Organization

_____ I have trouble organizing my time.

_____ I have trouble organizing things, e.g. house / car / business papers.

_____ I have trouble judging how long it will take to do something.

_____ When I have many things to do, I have trouble deciding which is most important to do.

Social

_____ I tend to feel out of place in a group.

_____ It’s hard for me to make friends.

_____ I often feel that I misunderstand other people’s words or actions or that they misunderstand mine.

Pages 2-7 were adapted by Margaret Lindop, the Center for Literacy Studies, The University of Tennessee, 1999, from Screening for Adults with Learning Disabilities: the Role of the Practitioner in the Assessment Process, National Adult Literacy and Learning Disabilities (ALLD) Center, Summer, 1998.
General

_____ It’s hard for me to judge distances.

_____ I have trouble finishing a project or a program.

_____ I find it hard to change from one activity to another.

_____ I have problems remembering.

_____ I have trouble with directions: right-left, east-west, north-south.

_____ I find it hard to motivate myself.

Pages 2-7 were adapted by Margaret Lindop, the Center for Literacy Studies, The University of Tennessee, 1999, from Screening for Adults with Learning Disabilities: the Role of the Practitioner in the Assessment Process, National Adult Literacy and Learning Disabilities (ALLD) Center, Summer, 1998.
Appendix C
CASE STUDY

The following case study contains all the components described in Chapter 2 – The Assessment Process - Psychoeducational Assessment.

Ms. Smith was diagnosed with learning disabilities. As you read her report, refer to Dr. Bell’s explanatory resource, “How to Read, Understand, and Use Psychoeducational Reports.” Note the organization of the report, the types of scores reported, the interpretation and recommendations.
CONFIDENTIAL PSYCHOLOGICAL REPORT

Name:    Ms. Smith
Age:    34 years, 3 months
Date of Birth:   1-5-67
Date(s) of Assessment:  4-20-2001

REASON FOR REFERRAL AND BACKGROUND INFORMATION:

Ms. Smith was referred for evaluation by XXXXX and XXXXX Services to rule out learning disabilities, to determine her current levels of intellectual and academic functioning and to yield information relevant for educational planning. She is currently enrolled in the XXXXX XXXXX Program and is attending adult education classes one day a week with the intention of receiving her General Education Degree (GED).

Ms. Smith is a single mother who currently works as a server in a local restaurant. In interview, she stated that she enjoys her current job and would like to continue working with the public. She expressed that she did not think that she could sit in an office all day and that she found factory work dull.

Ms. Smith reports that her inability to master basic skills, particularly spelling and multiplication, is the major barrier to her self-sufficiency. She reports that she experienced significant learning difficulties in school that required special education services. Due to her learning difficulties and family problems, she dropped out of school in the ninth grade.

Ms. Smith indicates that she experiences difficulties working from a test booklet to an answer sheet, mixing arithmetic signs, remembering how to spell simple words she knows, filling out forms, memorizing numbers, adding and subtracting numbers in her head, and taking notes.

ASSESSMENT PROCEDURES AND INSTRUMENTS:
Wechsler Adult Intelligence Scale-Third Edition (WAIS-III)
Woodcock-Johnson III, Tests of Cognitive Ability and Tests of Achievement (WJIII)
Interviews
Record Review

RELEVANT TEST BEHAVIORS:

Ms. Smith was cooperative during the assessment and appeared to put forth good effort. She did express anxiety and frustration concerning her inability to complete some items. She stated that she had never learned phonics and that she believes that this is the basis of her reading difficulties. Ms. Smith also needed to count on her fingers to complete simple addition and subtraction problems. Results are considered accurate and valid indicators of her potential.
ASSESSMENT RESULTS AND INTERPRETATION:

On the Wechsler Adult Intelligence Scale (WAIS-III), Ms. Smith achieved a Full Scale IQ of 80, which is at the 9th percentile and in the Low Average range of intellectual functioning. Chances are 95 out of 100 that the range of scores from 76 to 84 captures Ms. Smith’s “true” score. A “true” score is the average score that would be obtained upon repeated testing minus the effects of error such as practice and fatigue. WAIS-III IQ and index scores have a mean of 100 and a standard deviation of 15. Individual subtest scores have a mean of 10 and a standard deviation of 3. Ms. Smith scored as follows:

<table>
<thead>
<tr>
<th>Verbal Subtests</th>
<th>Performance Subtests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocabulary</td>
<td>Picture Completion</td>
</tr>
<tr>
<td>Similarities</td>
<td>Digit Symbol-Coding</td>
</tr>
<tr>
<td>Arithmetic</td>
<td>Block Design</td>
</tr>
<tr>
<td>Digit Span</td>
<td>Matrix Reasoning</td>
</tr>
<tr>
<td>Information</td>
<td>Picture Arrangement</td>
</tr>
<tr>
<td>Comprehension</td>
<td>Symbol Search</td>
</tr>
<tr>
<td>Letter Number Sequencing</td>
<td></td>
</tr>
</tbody>
</table>

According to these assessment results, Ms. Smith’s verbal comprehension skills and perceptual organization skills appear to be relatively equally developed, in the low average range. Ms. Smith did demonstrate a weakness in working memory; however, this difference was common in the standardization sample. Among subtests, Ms. Smith demonstrated a significant weakness on Arithmetic (basic math skills, mental concentration) and a significant relative strength on Coding (psychomotor speed, visual short-term memory, visual-motor coordination, concentration).

Further assessment of cognitive abilities was accomplished by administration of the Woodcock-Johnson Revised (WJIII) Tests of Cognitive Ability. The WJIII Tests of Cognitive Ability and Tests of Achievement, which have a mean of 100, and a standard deviation of 15. On selected subtests form the WJIII Tests of Cognitive Ability, Ms. Smith achieved the following grade equivalents. In addition, she achieved the following standard scores and percentiles, based on age norms on the subtests and the Cognitive Ability Factors:
Ms. Smith’s ability to store information and fluently retrieve it later through association (Long-Term Retrieval) is within the very low range (significantly subaverage) and her ability to analyze, synthesize and manipulate sounds is within the borderline range of scores obtained by others at her age level. Short term auditory memory was weak, consistent with her performance on the WAIS-III.

On the WJIII Tests of Achievement, Ms. Smith achieved the following grade equivalents. In addition, she achieved the following standard scores and percentiles, based on age norms:

<table>
<thead>
<tr>
<th>Subtests</th>
<th>Grade Equivalent</th>
<th>Standard Score</th>
<th>Percentile</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter-Word Identification</td>
<td>2.3</td>
<td>67</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Reading Fluency</td>
<td>3.5</td>
<td>82</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Passage Comprehension</td>
<td>2.4</td>
<td>80</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Calculation</td>
<td>3.5</td>
<td>73</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Math Fluency</td>
<td>4.7</td>
<td>73</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Applied Problems</td>
<td>3.8</td>
<td>74</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Spelling</td>
<td>1.0</td>
<td>63</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Writing Fluency</td>
<td>1.4</td>
<td>71</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Writing Samples</td>
<td>1.5</td>
<td>64</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Word Attack</td>
<td>K.3</td>
<td>38</td>
<td>&lt; 0.1</td>
<td></td>
</tr>
<tr>
<td>Reading Vocabulary</td>
<td>2.7</td>
<td>81</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Quantitative Concepts</td>
<td>2.3</td>
<td>73</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Broad Reading</td>
<td>-</td>
<td>74</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Basic Reading Skills</td>
<td>-</td>
<td>59</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>-</td>
<td>79</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Broad Math</td>
<td>-</td>
<td>72</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Broad Written Language</td>
<td>-</td>
<td>64</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Academic Skills</td>
<td>-</td>
<td>62</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Academic Fluency</td>
<td>-</td>
<td>69</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Academic Applications</td>
<td>-</td>
<td>75</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grade Equivalent</th>
<th>Standard Score</th>
<th>Percentile</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Term Retrieval</td>
<td>_</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>&lt;0.1</td>
<td>Visual-Auditory Learning</td>
<td>&lt;K.0</td>
<td>47</td>
</tr>
<tr>
<td>Retrieval Fluency</td>
<td>&lt;K.0</td>
<td>60</td>
<td>0.4</td>
</tr>
<tr>
<td>Phonemic Awareness</td>
<td>_</td>
<td>74</td>
<td>4</td>
</tr>
<tr>
<td>Incomplete Words</td>
<td>&lt;K.0</td>
<td>74</td>
<td>4</td>
</tr>
<tr>
<td>Sound Blending</td>
<td>K.4</td>
<td>80</td>
<td>9</td>
</tr>
<tr>
<td>Numbers Reversed (Short Term Memory)</td>
<td>1.0</td>
<td>69</td>
<td>2</td>
</tr>
</tbody>
</table>
Ms. Smith’s pattern of scores suggests academic weaknesses generally, relative to her ability level, but especially in the areas of reading and written language. Scores in reading ranged from kindergarten level (phonics) to 2nd grade level (sight word recognition) to 3rd grade level (reading fluency). Scores in math were more consistent, generally at 3rd to 4th grade level. Spelling, writing fluency, and ability to compose sophisticated sentences were weak, at 1st grade level. Generally, Ms. Smith’s basic skills were weaker than fluency which was weaker than applications. This pattern suggests she experiences most difficulty learning and recalling basic skills, likely associated with deficits noted in memory. Academic applications (i.e., comprehension and reasoning) are relatively stronger. Handwriting skills were notably weak; spelling errors and illegible handwriting served to make her written samples difficult to read.
SUMMARY AND RECOMMENDATIONS:

Current assessment results indicate generally low average ability with strength in clerical speed and weaknesses in short-term memory and especially in long-term retrieval and retention. Achievement test results suggest achievement is generally somewhat weaker than would be expected based on ability level, with significant weaknesses in basic reading skills (especially phonics) and written expression. Ms. Smith’s pattern of scores indicates a Learning Disability in the areas of basic reading skills and written expression, likely associated with short and long term memory deficits noted during assessment. Her ability to comprehend what she reads is apparently hampered by her poor basic reading skills, especially phonics. This same weakness impacts her writing skills. In addition, spelling and poor handwriting negatively impact the quality of her written expression. A similar pattern was even noted in math, where she was stronger on math reasoning than on math calculation.

Ms. Smith would likely benefit from systematic instruction in basic reading and writing skills. Approaches that emphasize systematic development of phonemic awareness are recommended (e.g., Corrective Reading from SRA, Language! by Sopris West, Slingerland, Herman, and Wilson). In instructing Ms. Smith, she should benefit from having meaning emphasized. Multiple repetitions using various modalities (i.e., visual, oral and kinesthetic) will probably be necessary for her to master academic material. High interest level reading material should be used for supplemental reading. In order to progress academically, Ms. Smith will need to use memory aids such as flash cards. If not already, she should learn proficiency with a calculator and a pocket speller. Reinforcement and repetition of basic math facts and sight words should be helpful.

Given Ms. Smith’s very weak academic functioning, it is questionable whether she will be able to master skills necessary to pass the GED. Based on her Learning Disability, she should be eligible for extended time when taking the GED. Audiotaped presentation of the GED and use of a calculator may be needed to accommodate her weaknesses associated with retention and retrieval of basic skills. Provision of a scribe to transfer answers (a problem noted by Ms. Smith) and to mitigate against poor handwriting and spelling errors on the essay portion of the GED is also recommended. Given that she meets criteria as Learning Disabled, she may be eligible for services through Vocational Rehabilitation.

Staff may wish to refer Ms. Smith for reassessment of academic progress in a few months to determine rate of progress and to reevaluate goals.

Diagnostic Impressions:  
DSM IV 315.00 Reading Disorder  
DSM IV 315.10 Writing Disorder

Jane Brown, Ph.D.  
Licensed Psychologist
Appendix D
Planning Tools

• Goal-Setting Form
• Skills-Wheel
• Role Maps

from
Equipped for the Future
http://www.nifl.gov/lincs/collections/eff/eff.html
# Goal-Setting Form

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose for Participating</td>
<td></td>
</tr>
</tbody>
</table>

What do you want to be able to do?

<table>
<thead>
<tr>
<th>What skills are needed?</th>
</tr>
</thead>
</table>

What strategies will you use?

<table>
<thead>
<tr>
<th>How will you know when you've achieved your goal?</th>
</tr>
</thead>
</table>

What evidence of progress toward your goal will you collect?
EFF Standards for Adult Literacy and Lifelong Learning
Parent/Family Role Map

Effective family members contribute to building and maintaining a strong family system that promotes growth and development.

**BROAD AREAS OF RESPONSIBILITY**

**Promote Family Members' Growth and Development**
Family members support the growth and development of all family members, including themselves.

- Make and pursue plans for self-improvement
- Guide and mentor other family members
- Foster informal education of children
- Support children's formal education
- Direct and discipline children

**Meet Family Needs and Responsibilities**
Family members meet the needs and responsibilities of the family unit.

- Provide for safety and physical needs
- Manage family resources
- Balance priorities to meet multiple needs and responsibilities
- Give and receive support outside the immediate family

**Strengthen the Family System**
Family members create and maintain a strong sense of family.

- Create a vision for the family and work to achieve it
- Promote values, ethics, and cultural heritage within the family
- Form and maintain supportive family relationships
- Provide opportunities for each family member to experience success
- Encourage open communication among the generations

NATIONAL INSTITUTE FOR LITERACY Revised - 3/29/99
## Citizen/Community Member Role Map

*Effective citizens and community members take informed action to make a positive difference in their lives, communities, and world.*

### Broad Areas of Responsibility

<table>
<thead>
<tr>
<th>Become and Stay Informed</th>
<th>Form and Express Opinions and Ideas</th>
<th>Work Together</th>
<th>Take Action to Strengthen Communities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citizens and community members find and use information to identify and solve problems and contribute to the community.</td>
<td>Citizens and community members develop a personal voice and use it individually and as a group.</td>
<td>Citizens and community members interact with other people to get things done toward a common purpose.</td>
<td>Citizens and community members exercise their rights and responsibilities as individuals and as members of groups to improve the world around them.</td>
</tr>
</tbody>
</table>

#### Key Activities

- Identify, monitor, and anticipate problems, community needs, strengths, and resources for yourself and others.
- Recognize and understand human, legal, and civic rights and responsibilities for yourself and others.
- Figure out how the system that affects an issue works.
- Identify how to have an impact and recognize that individuals can make a difference.
- Find, interpret, analyze, and use diverse sources of information, including personal experience.
- Strengthen and express a sense of self that reflects personal history, values, beliefs, and roles in the larger community.
- Learn from others' experiences and ideas.
- Communicate so that others understand.
- Reflect on and reevaluate your own opinions and ideas.
- Get involved in the community and get others involved.
- Respect others and work to eliminate discrimination and prejudice.
- Define common values, visions, and goals.
- Manage and resolve conflict.
- Participate in group processes and decision making.
- Help yourself and others.
- Educate others.
- Influence decision makers and hold them accountable.
- Provide leadership within the community.

---

*NATIONAL INSTITUTE FOR LITERACY  Revised – 3/29/99*
Worker Role Map

Effective workers adapt to change and actively participate in meeting the demands of a changing workplace in a changing world.

**BROAD AREAS OF RESPONSIBILITY**

**Do the Work**
Workers use personal and organizational resources to perform their work and adapt to changing work demands

**Work With Others**
Workers interact one-on-one and participate as members of a team to meet job requirements

**Work Within the Big Picture**
Workers recognize that formal and informal expectations shape options in their work lives and often influence their level of success

**Plan and Direct**
**Personal and Professional Growth**
Workers prepare themselves for the changing demands of the economy through personal renewal and growth

**KEY ACTIVITIES**

- Organize, plan, and prioritize work
- Use technology, resources, and other work tools to put ideas and work directions into action
- Respond to and meet new work challenges
- Take responsibility for assuring work quality, safety, and results

- Communicate with others inside and outside the organization
- Give assistance, motivation, and direction
- Seek and receive assistance, support, motivation, and direction
- Value people different from yourself

- Work within organizational norms
- Respect organizational goals, performance, and structure to guide work activities
- Balance individual roles and needs with those of the organization
- Guide individual and organizational priorities based on industry trends, labor laws/contracts, and competitive practices

- Balance and support work, career, and personal needs
- Pursue work activities that provide personal satisfaction and meaning
- Plan, renew, and pursue personal and career goals
- Learn new skills
Appendix E
Reproducible Graphic Organizers

Directions for Use and Examples
By
Amanda Keller
Main Idea and Details

- Used to show several details under one main idea
- Boxes for details may be added or taken away, depending on the selected reading.
- Used for any content where one idea is superior to other ideas

Examples:
- The ways that automobiles have affected American life
- The number 8 and different ways to make it
- Main Idea and details from charts, graphs, and diagrams
Concept Map - a Variation of Main Idea

• Used when several ideas support a main idea, but not necessarily in a hierarchical structure. Ideas may be equal to each other and may interact with the main idea from any angle.

• Ideas in this structure may be connected to each other (dashed lines), or they may relate only to the central idea (solid lines).

• This graphic is used after the concept of main idea and details is well understood.
Sequence Line

- Used to show a progression, with one piece of information following others
- May be open ended, or may have a definite starting point and ending point
- Clue words are usually present in reading to help show the sequence of events.
- With sequence lines and variations of sequence lines, it is important to identify the type of sequencing that is occurring. I avoid calling the sequence line a TIMELINE, since TIME is only one variation of sequence.

Examples:

- Dates of battles in the American Civil War
- Data from a graph in narrative form
- Steps in solving a math problem
Cyclical Organizer - Variation of Sequence Line

- Processes are often cyclical, meaning there is sometimes no clear beginning and end.
- The cyclical organizer illustrates the continuation of a repeated series of steps.

Examples:
The Water Cycle
Steps in Long Division
Photosynthesis
Literary Plot Line- Variation of Sequence Line

- Plot lines involve sequence, but also literary components, such as rising action.
- The plot line shows events in a story leading up to one major event, and then the action subsiding again.

Examples:

- Various types of Literature, both fiction and non-fiction
Cause and Effect Map (Fishbone)- Variation of Sequence Line

- Cause and Effect is listed as a sequencing skill, but it is important to note that cause and effect is also a separate skill, depending on its use. For the purposes of the graphic shown, cause and effect is treated as a sequence, with several causes leading to an end result. However, this is not the only way that causes and effects can interact.

- This model shows how several causes lead to a certain end result.

- Causes would be listed on the arrows, and the final effect in the oval at the end.

Examples:

- Events surrounding and including the American Revolution
- Creation of compound sentences, using conjunctions to link causes to effects. (example: King George taxed American colonists, so the colonists became angry.)

```
Tea was taxed.  
\[\rightarrow\]  
Papers were taxed.  
\[\rightarrow\]  
Colonists had no voice in Parliament  
\[\rightarrow\]  
The American colonists revolted and won their independence.  
```
Drawing Conclusions

- A series of facts represented by small rectangles lead me to conclusions listed in the large rectangle.

Examples:

Given facts about – 

- geometric shapes
- a particular president

I can-

- identify the solid
- identify the president

was the 16th president

Abe Lincoln

was assassinated

president of the Union during the Civil War
Compare and Contrast

- The Venn Diagram allows students to see how two things are alike and how they are different.
- A student could use a Venn diagram to write a comparison/contrast essay by simply using the three sections of the diagram to make three paragraphs (two contrasting paragraphs, and one comparing paragraph).

Examples:
- Compare/Contrast the governments of two countries
- Compare/Contrast mammals and reptiles
- Find the least common multiple of two numbers
- Compare/Contrast a pyramid and a cube
Three Item Venn- Variation of the Two-Item Venn

- For more advanced students, more circles can be added to the Venn diagram to compare and contrast three or more things.

- Sometimes a certain reading assignment will require three or more circles.

Examples:

- Compare/Contrast the governments of three countries
- Compare/Contrast mammals, reptiles, and fowl
- Find the least common multiple of three numbers
The Matrix- Variation Compare and Contrast

- The matrix allows students to see attributes in a table form. Items to be compared are listed along one axis, and attributes used for comparison are listed along the other.
- When comparing several items, this graphic seems to work better than the Venn for my students.

Examples:
- Comparing/Contrasting the nine planets
- Comparing/Contrasting the three kinds of rock
- Comparing/Contrasting the parts of speech

<table>
<thead>
<tr>
<th></th>
<th>uses</th>
<th>examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>adverbs</td>
<td>when?</td>
<td>today</td>
</tr>
<tr>
<td></td>
<td>where?</td>
<td>there</td>
</tr>
<tr>
<td></td>
<td>how?</td>
<td>quickly</td>
</tr>
<tr>
<td>adjectives</td>
<td>how many?</td>
<td>ten</td>
</tr>
<tr>
<td></td>
<td>what kind?</td>
<td>heavy</td>
</tr>
<tr>
<td></td>
<td>which one?</td>
<td>pink</td>
</tr>
</tbody>
</table>
Appendix F
Direct Instruction Model

Adapted by Amanda Keller from *Instruction: A Models Approach* (Gunter, Estes & Schwaab, 1995)

I. **Set: Provide Objectives, Establish Expectations, and Introduce the Skill**
   A. Activate Background Knowledge
   B. Involve All Students
   C. Relate to Real Life
   D. Label the Learning and Set Goals

II. **Instruction: Introduce and Model the Skill**
   A. Teacher does it. (Students use eyes and ears.)
   B. Teacher does it; students help. (Students use eyes, ears, and voices.)
   C. Students do it; teacher helps. (Students use eyes, ears, voices, and pencils.)
   D. Students do it. (Students use pencils.)

III. **Guided Practice with Feedback**
    Students have the opportunity to practice their new skills under the teacher’s supervision.
    This is a good opportunity for peer-tutoring or cooperative learning, especially in the context of word problems.

IV. **Closure**
   A. "Tell me (or someone else) what you learned."
   B. "Show me what you learned."
   C. "Do one more."

V. **Independent Practice and Generalization**
   A. Have student practice your new skill independently.
   B. Have student do a problem every day.
   C. Discuss: "How can you use this skill at home, ...at work?"
I see it.

I hear it, and
I tell it.

I do it.

I REMEMBER IT!!
Appendix G
Building Blocks of Sentences: Direct Instruction  
Lesson created by Amanda Kelley  
For use with Sentence Builders/Word Shapes, a learning tool described in:  

Objectives  
Be able to write a complete sentence  
Be able to punctuate and capitalize correctly in a sentence

Set  
Relate to real life and Activate background knowledge  
"What is the purpose of spoken language? Why is it hard to understand babies' speech sometimes? When you learned to talk, how did your speech change? "  
(fragmented » complete)

Involves all students  
"How might a one or two year old describe a puppy? How might an adult describe the same puppy? How do you account for the difference?"

Label the learning  
"Today we're going to look at the structure of sentences. We're going to look at the building blocks that make up sentences. We will 'build' sentences of our own."

Instruction  
* "Let's study our lesson.  
To help us think about what a sentence tells us, let's look at this picture. "  
(Shows a picture of a black cat climbing a tree.)

Modeling  
*I do._ (Demonstrate on the board with shapes while speaking the sentence. Then write the sentence in words.)

"Every sentence must have an actor and an action. (The concept of linking verb will be introduced later.) This is where the sentence begins."

"I'll choose a piece to represent the actor (cat) and a piece for the action (climbed)."
(Say aloud while placing the pieces on the board or display area,  
"The actor is the cat and the action is climbed.")

| cat | climbed |
*Now I'm going to think about the actor (cat). What kind of cat is she? (a black cat) I'll choose a piece to represent the descriptive work black'.' (Place adjective piece.)

Black cat climbed
That doesn't sound right. I'll say
*The black cat climbed
(Add article piece.)

Add this step only when students have mastered the above steps

* "Now, where did the cat climb?"

Up the tree

Place the pieces for a preposition, article, and object.

*(Write the sentence symbolically-with the shapes- while you say it. Write the sentence in words.)

*I do: you help. ("I'll show you another picture and tell you the actor and action. You help me with the rest." (Do several, asking the cue questions out loud.)

*I do on the board. You do at your seat. (Do several together.)

*You do: I help.
"Look at this picture. Let's decide on an actor and an action. Make your own sentence - with shapes, then write the words. I'll help as needed."

*You do (Hand out starter pictures or ask students to create their own actor and action. You decide on an actor and action. Make your own sentence, both ways.

Guided Practice
"Create five sentence both symbolically and in writing. Choose one best sentence and write on a sentence strip to share with the class. You may choose to duplicate on the board symbolically, too."

Closure: "Do one more.

Independent Practice
"Create ten original sentences."

In a later lesson, using the sentence graphic, add:

Which words go with actors? (adjectives)
Which ones go with actions? (adverbs)
DIRECT INSTRUCTION
GEOMETRY LESSON: VOLUME OF A CYLINDER

OBJECTIVES

• Recognize and correctly name a cylinder
• Distinguish between two-dimensional regions and three-dimensional ones
• Use a formula to perform a calculate the volume of a cylinder

LESSON SET

• **Activate Background Knowledge:** We have been studying geometry. You are familiar with formulas and shapes.

• **Involve All Students:** Name the shapes that I draw.

![Shapes](image)

Name and define the parts of a circle.
Review pi.
Recall the area and circumference formulas.
What is the name of this shape?

![Shapes](image)

• **Relate to Real Life:** Where might I encounter such a shape in everyday life?
-Cylinder, 3 feet high, 1 foot radius

• (Teacher does, student helps) For the next two examples, I will do the work on the board, but I want you to help me by telling me what to do. Do not try to work these examples on paper. Instead, let's see if we can do them orally.

  -Cylinder, 8 feet high, radius 2
  -Cylinder, 6 feet high, radius 3

***** Distribute worksheet

• (Student does, teacher helps) For the next two examples, I want you to work with your pencil. I will still work the problems on the board, but you should work them on your sheet with me.

  -Examples one and two on worksheet

• (Student does) - I am going to let you work the last two examples by yourself. I will help you if you need my help. If you need to talk yourself through the steps, do so. When you are finished, I will check to make sure you have done the examples correctly.

  (Volunteers to come to the board and work the examples?)
  -Examples three and four on the worksheet

• Guided Practice: I am going to give you another set of examples to practice. Complete these in class. If you need help, I will help you. (Group work is a good thing to do at this point. Students can help each other, as well as talk to each other about the work they are doing. I ask volunteers to work the examples on the board sometimes.)
• **Closure**

- Remove all notes and examples. Tell your partner how to find the volume of a cylinder.

- Tell ME how to find the volume of a cylinder. I will write the steps on chart paper as you tell me. (Often, I post these closure lists in the room to help students remember the steps for later use. If they help generate the lists, the lists make more sense.)

- Let's do one more example.
  Cylinder, 10 feet high, 8-feet radius

• **Independent Practice:** exercises to be completed by students without supervision

  - a worksheet of examples like those done in class

  - a set of controlled real-life examples students measure and calculate the volume of the cylinders (could include fraction and decimal calculations)

  - uncontrolled real-life examples- find cylinders in the room, measure, and calculate volume

  - series of word problems involving the calculations learned

  - calculations with examples where diameter is given instead of radius
How is such a shape useful to us? What is the difference between a circle and cylinder?

• **Label the Learning:** Today we will learn to calculate the area of a cylinder. We will use a formula to do the calculations.

**LESSON:** For this lesson, we will need the following formula:

\[ V = \pi r^2 h \]

Review the fact that \( V, h, r \) are variables. The 2 is an exponent, and \( \pi \) is a Greek letter that is constant.

• **(Teacher does)** For the first part of the lesson, I am going to work the examples on the board. I only want you to watch and listen. Do not help me on these examples. Try to picture in your head what I am going to do. Do not try to work these examples on paper. (eyes and ears ONLY)

-Cylinder: 10 feet high, radius 2 feet

(Draw the example on the board, and follow the Volume formula. Talk through these steps as you work the examples.)

Write the formula.

Put spaces in place of ALL letters (pi is a letter).

Fill in the spaces with info you know.

Perform the calculations.