Recognizing adult learning disabilities

Mark Stephen Shepherd

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RECOGNIZING ADULT LEARNING DISABILITIES

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Education:
Vocational Education

by
Mark Stephen Shepherd
June 2000
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6/2/00
ABSTRACT

The purpose of this project was to develop aids and strategies for identifying and assisting adult students with learning disabilities.

Physical and mental disabilities (i.e., blindness, deafness, paraplegic, quadriplegic, Down syndrome, mental retardation, poor eyesight, and hard of hearing, and non-English speaking) are considered an obvious disability; however, for the purpose of this project consideration was given to the less obvious or even obscure learning disabilities. Using the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM-IV 1994), and other salient resources, the project addresses specific descriptions for identifying traits, behaviors, and characteristics in the recognition of: dyslexia; color blindness, tic disorders, Tourette's syndrome, scotopic sensitivity syndrome, behavior disorders, attention deficit disorder (ADD), attention deficit/hyperactivity disorder (ADHD), aphasic disorders, and autistic disorders.

The goal of this thesis was to isolate adult learning disabilities and suggest avenues to assist disabled adults in their education.
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DEDICATION

To all of the teachers and professors who have helped me grow and learn and expand my horizons.

Teaching may also be likened to kindling a fire, the fire of faith, in the hearts of men and women. If a fire burns only so long as the match is held to it, it cannot truly be said to have been kindled; to be kindled it must continue to burn of its own accord.

The Universal House of Justice
May 25, 1975
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CHAPTER ONE

Background

Introduction

The content of Chapter One is an overview of this thesis project. The context of the problem is introduced, followed by the purpose and significance of the project. Next, the limitations and delimitations that apply to the project are reviewed. A definition of terms is presented.

Context of the Problem

According to the American Psychiatric Associations Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) learning disorders are diagnosed when the individual's achievement on individually administered, standardized tests in reading, mathematics, or written expression are substantially below that expected for age, schooling, and level of intelligence. The learning problems significantly interfere with academic achievement or activities of daily living that require reading, mathematical, or writing skills.

Learning disorders must be differentiated from normal variations in academic attainment and from scholastic difficulties due to lack of opportunity, poor teaching, or cultural factors. Inadequate schooling can result in poor performance on standardized achievement tests. Adults from
ethnic or cultural backgrounds different from the prevailing school culture or in which English is not the primary language and adults who have attended class in schools where teaching has been inadequate may score poorly on achievement tests. Adults from these same backgrounds may also be at greater risk for absenteeism, due to more frequent illness or impoverished or chaotic living environments. If a sensory deficit is present, the learning difficulties must be in excess of those usually associated with the deficit.

It has been found, even currently, that some of the finer points of adult education have been neglected or ignored (especially within the ranks of older and minority adults). Questions needing answers are: What are the problems of adult learners? How do adult learners cope, grow, and learn? More specifically, what does the research say about the assessment and analysis of adults with learning disabilities?

Thus, the goal of this thesis design project is aimed at isolating and exploring adult learning disabilities, and trying to find a path in which adults with these conditions may be assisted.

**Purpose of the Project**

The purpose of this thesis design project was to develop aids and strategies for vocational educators to
identify and assist adult students with learning disabilities (identify traits, behaviors, and characteristics).

There is a noticeable difference between pedagogy (the education of children), and andragogy (the education of adults). Being an effective instructor involves understanding how adults learn best. Compared to children and teens, adults have special needs and requirements as learners. Andragogy (adult learning) is a relatively new area of study. The field of adult learning was pioneered by Malcom Knowles. He identified some of the basic characteristics of adult learners. According to Knowles:

- Adult learners are autonomous and self-directed. They need to be free to direct themselves. Their teachers must actively involve adult participants in the learning process and serve as facilitators for them.

- Adults have accumulated a foundation of life experiences and knowledge. They need to connect learning to this knowledge/experience base.

- Adults are goal-oriented. Upon enrolling in a course, they usually know what goal they want to attain.
• Adults are relevancy-oriented. They must see a reason for learning something.
• Adults are practical, focusing on aspects of a lesson most useful to them in their work.
• As do all learners, adults need to be shown respect (National ALLD Center, 1995).

Then, to successfully teach an academic subject to an adult learner educators will need to know, or will discover along the way, some of the background (physiologically and behaviorally) which might affect that student's performance. A teacher may have several students, however they may be able to assess over time (by being knowledgeable and aware of the problems that are involved in learning disabilities of adult learners) a way to aid that student in being more successful in their attempts at education, career or job advancement, and a healthier, better life for themselves and others around them.

Significance of the Project

If an instructor, teacher, or educator notices (through knowledge and experience) a problem a student might have, that if corrected may result in the student performing better, the instructor may want to suggest to the student or refer them to the appropriate professional for screening and
assessment. An assessment refers to the gathering of relevant information that can be used to help an adult learner make decisions, and provides for a means for assisting an adult to live more fully. An adult learner is assessed because of problems in employment, education and/or life situations. An assessment involves more than just taking tests. An assessment includes an evaluation, a diagnosis, and recommendations.

Assumptions

The following assumptions were made regarding this project: 1) there is a need for information to be disseminated; 2) there is an interest in the educational community to learn more about this field; 3) there is not a comprehensive publication providing the information in the project handbook.

Limitations

The following limitations apply to the project: 1) the study was limited to a review of educational institutes in San Bernardino County, in the state of California; 2) the thesis project was limited by lack of resources, etc., linked to adult learning disabilities.

Delimitations

One great factor that will delimit the subject of adult learning disabilities is the aging of the "Baby Boomer"
generation, the largest segment of population per capita that has ever been in the United States. With this large of a section of people in the United States aging, more attention and focus will be on adult issues. It will force the issue "the need" for more research and solutions. This will create a situation in favor of research on adult education and adult learning disabilities. This could attract more money for research and development and will create more interest out of the sheer need to deal with this large of a segment of the population of the United States.

Because of this the following delimitations apply to the project: 1) the project could extend beyond San Bernardino County. An investigation clearly shows there is a shortage of information in this area throughout the state of California; 2) the project could actually extend throughout the United States. Any information that delineates the deficit in this vastly unknown field would be a step in meeting the needs of adults with learning disabilities in the United States and the world.

Definition of Terms

There are obvious physical and mental disabilities such as; blindness, deafness, paraplegic, quadriplegic, Down Syndrome, mental retardation, poor eyesight, and hard of hearing. Not knowing English in a predominantly English
speaking country might be considered an obvious disability. However, for the purposes of this project consideration was given to some of the less obvious or even obscure at times learning disabilities. These may include:

- **Dyslexia** - A tendency to reverse numbers or letters or see them incorrectly (DSM-IV, 1994).

- **Color Blindness** - A tendency to see colors incorrectly which in some instances distorts or affects vision (DSM-IV, 1994).

- **Tourette's Syndrome** - Characterized by an uncontrollable twitching of the shoulder, neck, arm—a twitching in the facial muscles and mouth—sometimes uncontrollable vulgarity. This links it to a possible brain malfunction or imbalance (DSM-IV, 1994).

- **Scotopic Sensitivity Syndrome** - A visual sensitivity to light (DSM-IV, 1994).

- **Behavior Disorders** - Self-esteem, depression, and child abuse problems (DSM-IV, 1994).

- **Attention Deficit Disorder (ADD)** - Unable to focus attention in which it hinders learning (DSM-IV, 1994).
• Attention Deficit/Hyperactivity Disorder (ADHD) - Unable to focus attention and hyperactive behavior (DSM-IV, 1994).

• Aphasic Disorders - Speech malfunction disorders (DSM-IV, 1994).

• Autistic Disorders - An unknown lack of verbal skills (DSM-IV, 1994).

In 1975, the passage of regulations accompanying Public Law 94-142, the Education for all Handicapped Children Act, specifically included a definition of learning disabilities for children that served as a guideline to provide appropriate educational, legislative, and judicial relief. The federal definition was based on the needs of children with learning disabilities, not recognizing how their disability would affect them as adults. The impact of learning disabilities may compound with age. While individuals with learning disabilities may demonstrate some intellectual strengths, their areas of disability may prevent them from advancing as adults in certain life situations at the same level as their peers.

It had become apparent that learning disabilities persist throughout an individual's life, and it had become crucial to develop a definition that described learning disabilities but did not limit the condition to children.
Professionals in education, psychology, neurology, biology, and child development have gotten together and developed definitions that describe learning disabilities as a lifelong condition.

One definition developed by The Rehabilitation Services Administration states (p. 21):

A specific learning disability is a disorder in one or more of the central nervous system processes involved in perceiving, understanding, and/or using concepts through verbal (spoken or written) language or nonverbal means. This disorder manifests itself with a deficit in one or more of the following areas: attention, reasoning, processing, memory, communication, reading, writing, spelling, calculations, coordination, social competence, and emotional maturity (National ALLD Center, 1995).

Organization of the Project

This thesis design project will explore the dilemmas faced by adult students with learning disabilities. Five main parts in this thesis project will be presented: 1) Introduction; 2) Exploration of research on the subject; 3)
An investigation of the methodologies and population served; 4) Conclusions and recommendations; 5) Appendix; matrix and handbook.

The goal was to design an ideal and feasible method for instructors to help adult students with learning disabilities to isolate a learning disability if they have one, and take a proactive role in discovering such disabilities so that their performance in education and in life might be enhanced.
CHAPTER TWO

Review of the Literature

Introduction

Chapter Two consists of a discussion of relevant literature and research which include background and implications that support the recognition of adult learning disabilities. Subsections include a background statement, common elements in LD definitions, impacts of LD on adults, as well as specific descriptions to identify traits, behaviors, and characteristics of: dyslexia; color blindness; tic disorders; Tourette's Syndrome; scoptic sensitivity syndrome; behavior disorders; attention deficit disorder (ADD); attention deficit/hyperactivity disorder (ADHD); aphasic disorders; and autistic disorders.

Background Statement

It was found that there may be many contributors in which learning disabilities develop. The student's heredity, environment, or behavioral or physiological background. Learning disabilities may hinder a student's ability to learn academic subjects or from completing tasks in which they may otherwise have the intelligence and mental capability to accomplish, but the learning disability may be a block or stand in the way of the student's success. That gives them a handicap as such.
Common Elements in LD Definitions

The following concepts are important to understanding the similarities and contrasts that exist among the many definitions of learning disabilities.

• Some definitions suggest that learning disabilities exist when a person has uneven patterns of development. Other definitions suggest that learning disabilities are indicated by aptitude-achievement discrepancies.

• Most definitions specify that the cause for learning disabilities is the result of a problem in the central nervous system.

• Some definitions suggest that learning disabilities are caused by interference in the neurological processes that make proficient performance possible.

• Most definitions imply that learning disabilities can be present at any age.

• Most definitions specify that problems understanding spoken or written language can be caused by learning disabilities.

• Some definitions specify that certain types of academic problems (e.g., those involving reading, writing, spelling, or math) can be caused by learning disabilities.
• Some definitions specify that problems involving social skills, spatial orientation, sensory integration, or motor skills can be manifestations of learning disabilities.

• Some definitions indicate the learning disabilities can coexist with other kinds of handicaps (e.g., emotional disturbance or sensory impairment). Other definitions are worded to eliminate the coexistence of learning disabilities with other disabling conditions (National ALLD Center, 1995).

Impacts of LD on Adults

The impacts of learning disabilities may compound with age. While individuals with learning disabilities demonstrate some intellectual strengths, their areas of disability may prevent them from excelling as adults in certain life situations at the same level as their peers. Areas where learning disabilities may affect adults include:

• **Self Esteem** - Being criticized, put down, teased, or rejected because of failures in academic, vocational, or social endeavors often leaves adults with learning disabilities with low self-esteem. Adults with low self-esteem tend not to take risks or strive to reach their potential. Also, adults
with low self-esteem are less likely to advocate for themselves.

- **Education** - Learning disabilities that may manifest themselves in difficulties in spoken or written language, arithmetic, reasoning, and organizational skills will affect adults in adult basic education, literacy, postsecondary and vocational training settings. These students may perform at levels other than those expected of them. Adult educators are not always prepared to address the unique needs of learners with learning disabilities.

- **Vocation** - Errors are commonly found in filling out employment applications because of poor reading or spelling skills. Job-related problems frequently arise due to learning disabilities that causes difficulties in organization, planning, scheduling, monitoring, language comprehension and expression, social skills, and inattention.

- **Social Interactions** - Adults with learning disabilities may demonstrate poor judgment of others' moods and attitudes and appear to be less sensitive to others' thoughts and feelings. In social settings these adults may do or say...
inappropriate things and have problems comprehending humor, for example. They may have problems discriminating response requirements in social situations. These traits may result in a difficulty finding and keeping a job or developing long-term relationships.

- **Independent Living** - Responsibilities such as writing checks, filing out tax forms, or taking phone messages may present problems for adults with learning disabilities. Adults with LD may find themselves without the support systems (parents, schools, social services, etc.) that they relied on as children and have to incorporate their own accommodations when necessary (National ALLD Center, 1995).

**Specific Descriptions (Traits, Behaviors, and Characteristics)**

The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, American Psychiatric Association, 1994) is the classification system typically used by psychologists and other private evaluators for identification and labeling of disorders for children and adults. The DSM-IV does not include the term learning disabilities as a single category. Rather, learning disabilities become defined under the following categories of learning disorders: reading
disorders; mathematics disorders; disorders of written expression; and not otherwise specific (NOS) disorders. In the same DSM-IV chapter (but not included in the index under a reference for learning disabilities) are categories of phonological disorders, expressive language disorders, mixed receptive or expressive language disorders, and motor disorders. The DSM-IV clearly defines learning disabilities as a disorder of academic underachievement using a discrepancy-based model (Greg, McKinley & Johnson, 1996).

**Dyslexia**

There are many types and aspects involved in the definition of dyslexia. A simple definition is that students that show signs of dyslexia have a tendency to reverse numbers or letters or see them incorrectly. However, in a research study Van Der Leij and Van Daal discussed the automatizational aspects of dyslexia. There are three symptoms that they identified in the automatization theory: 1) Speed limitations in word identification; 2) Sensitivity to increasing task demands; and 3) Orthographic compensation (which includes the quality of the numbers or letters that are being represented as well as the correct order or spelling of the numbers or letters that are being represented).
Van Der Leij and Van Daal found (1999), although automaticity as a theoretical concept has been subject to debate and evolution, there seems to be little doubt that it plays an important role in the development of basic skills such as reading. It is fair to state that automaticity is the key feature of skilled reading. As a consequence, learning to read may be interpreted as learning how to automatize word-recognition skills. The reason why it is important was well expressed by Adams (1990): "Human attention is limited. To understand connected text, our attention cannot be directed to the identities of individual words and letters. In reading as in listening, the process of individual word perception must proceed with relative automaticity, and such automaticity is afforded only through learning" (pp. 228-229).

**Color Blindness**

A simple definition for color blindness is that the student has a tendency to see colors incorrectly, which in some instances distorts or affects vision. Color-blind Adjective; unable to tell certain colors apart, especially red and green; unable to perceive different colors or any colors. Color blindness would affect a student's ability to read, write, or in social or vocational aspects of living (Scott, 1997).
Tic Disorders

A tic is a sudden, rapid, recurrent, nonrhythmic, stereotyped motor movement or vocalization. It is experienced as irresistible but can be suppressed for varying lengths of time. All forms of tic may be magnified by stress and reduced during absorbing activities (e.g., reading or sewing). Tics are usually markedly diminished during sleep. Both motor and vocal tics may be classified as either simple or complex, although the boundary is not well defined. Common simple motor tics include eye blinking, neck jerking, shoulder shrugging, facial grimacing, and coughing. Common simple vocal tics include throat clearing, grunting, sniffing, snorting, and barking. Common complex motor tics include facial gestures, grooming behaviors, jumping, touching, stamping, and smelling an object. Common complex vocal tics include repeating words or phrases out of context, coprolalia (use of socially unacceptable words, frequently obscene), palilalia (repeating one's own sounds or words), and echolalia (repeating the last-heard sound, word, or phrase). Other complex tics include echokinesis (imitation of someone else's movements) (DSM-IV, 1994).

This could affect a student's self-esteem and social behavior and could multiply into many different aspects of learning disabilities causing behavior disorders and conduct
disorders which could cause problems in reading, writing, and math skills as well as vocational and social life skills. The tic symptoms are obvious.

**Tourette's Syndrome**

Tourette's Syndrome is in the family of tic disorders. The essential features of Tourette's Disorder are multiple motor tics and one or more vocal tics. These may appear simultaneously or at different periods during the illness. The tics occur many times a day, recurrently throughout a period of more than one year. During this period, there is never a tic-free period of more than three consecutive months. The disturbance causes marked distress or significant impairment in social, occupational, or other important areas of functioning. The onset of the disorder is before age 18 years. The tics are not due to the direct physiological effects of a substance (e.g., stimulants) or a general medical condition (e.g., Huntington's disease or postviral encephalitis).

The anatomical location, number, frequency, complexity, and severity of the tics change over time. The tics typically involve the head and, frequently, other parts of the body, such as the torso and upper and lower limbs. The vocal tics include various words or sounds such as clicks, grunts, yelps, barks, sniffs, snorts, and coughs.
Coprolalia, a complex vocal tic involving the uttering of obscenities, is present in a few individuals (less than 10%) with this disorder. Complex motor tics involving touching, squatting, deep knee bends, retracing steps, and twirling when walking may be present. In approximately one-half the individuals with this disorder, the first symptoms to appear are bouts of a single tic, most frequently eye blinking, less frequently tics involving another part of the face or the body. Initial symptoms can also include tongue protrusion, squatting, sniffing, hopping, skipping, throat clearing, stuttering, uttering sounds or words, and coprolalia. The other cases begin with multiple symptoms.

Tourette's is a learning disability as it may produce social discomfort, shame, self-consciousness, and depressed moods. Social, academic, occupational and vocational functioning may be impaired because of rejection by others or anxiety about having tics in social situations (DSM-IV, 1994).

**Scotopic Sensitivity Syndrome**

Irlen Institute (1999) defines scotopic sensitivity syndrome in that individuals exhibit an unusual sensitivity to specific frequencies and wave lengths of the white light spectrum. When the text, for example, consists of black print on a white page, certain cells in the retina may
become overstimulated and send incorrect signals to the brain. Scotopic sensitivity syndrome (Irlen's syndrome) is a perceptual dysfunction affecting mainly reading, writing, and mathematical activities.

**Behavior Disorders**

Behavior disorders were formerly not included in the definition of learning disabilities. However, within the current rehabilitation services administration definition it states that a disorder that manifests itself with a deficit in one or more of the following areas; attention, reasoning, processing, memory, communication, reading, writing, spelling, calculation, coordination, social competence, and emotional maturity, may be a learning disability.

Individuals with Conduct Disorder may have little empathy and little concern for the feelings, wishes, and well-being of others. Especially in ambiguous situations, aggressive individuals with this disorder frequently misperceive the intentions of others as more hostile and threatening than is the case and respond with aggression that they then feel is reasonable and justified. They may be callous and lack appropriate feelings of guilt or remorse. It can be difficult to evaluate whether displayed remorse is genuine because these individuals learn that expressing guilt may reduce or prevent punishment. Individuals with
this disorder may readily inform on their companions and try to blame others for their own misdeeds. Self-esteem is usually low, although the person may project an image of "toughness." Poor frustration tolerance, irritability, temper outbursts, and recklessness are frequent associated features. Accident rates appear to be higher in individuals with Conduct Disorder than in those without it (DSM-IV, 1994).

**Attention Deficit Disorder (ADD)**

There is still much ongoing research being conducted dealing with attention deficit disorder (ADD). A simple definition would be that a student is unable to focus attention sufficiently which may disrupt attempts at learning academic subjects or completing tasks such as in competency based programs.

Inattention may be manifest in academic, occupational, or social situations. Individuals with this disorder may fail to give close attention to details or may make careless mistakes in schoolwork or other tasks. Work is often messy and performed carelessly and without considered thought. Individuals often have difficulty sustaining attention in tasks or play activities and find it hard to persist with tasks until completion. They often appear as if their mind is elsewhere or as if they are not listening or did not hear
what has just been said. There may be frequent shifts from
one uncompleted activity to another. Individuals diagnosed
with this disorder may begin a task, move on to another,
then turn to yet something else, prior to completing any one
task. They often do not follow through on requests or
instructions and fail to complete schoolwork, chores, or
other duties. Failure to complete tasks should be considered
in making this diagnosis only if it is due to inattention as
opposed to other possible reasons (e.g., a failure to
understand instructions). These individuals often have
difficulties organizing tasks and activities. Tasks that
require sustained mental effort are experienced as
unpleasant and markedly aversive. As a result, these
individuals typically avoid or have a strong dislike for
activities that demand sustained self-application and mental
effort or that require organizational demands or close
concentration (e.g., homework or paperwork). This avoidance
must be due to the person's difficulties with attention and
not due to a primary oppositional attitude, although
secondary oppositionalism may also occur. Work habits are
often disorganized and the materials necessary for doing the
task are often scattered, lost, or carelessly handled and
damaged. Individuals with this disorder are easily
distracted by irrelevant stimuli and frequently interrupt
ongoing tasks to attend to trivial noises or events that are usually and easily ignored by others (e.g., a car honking, a background conversation). They are often forgetful in daily activities (e.g., missing appointments, forgetting to bring lunch). In social situations, inattention may be expressed as frequent shifts in conversation, not listening to others, not keeping one's mind on conversations, and not following details or rules of games or activities (DSM-IV, 1994).

Attention Deficit/Hyperactivity Disorder (ADHD)

There is still much ongoing research being conducted dealing with ADHD. It has been found recently that ADHD may be linked or part of the symptoms of dyslexia. A simple way to describe ADHD would be that a student is unable to focus attention and has hyperactive or impulsive behavior.

Impulsivity manifests itself as impatience, difficulty in delaying responses, blurting out answers before questions have been completed, difficulty awaiting one's turn, and frequently interrupting or intruding on others to the point of causing difficulties in social, academic, or occupational settings. Others may complain that they cannot get a word in edgewise. Individuals with this disorder typically make comments out of turn, fail to listen to directions, initiate conversations at inappropriate times, interrupt others excessively, intrude on others, grab objects from others,
touch things they are not supposed to touch, and clown around. Impulsivity may lead to accidents (e.g., knocking over objects, banging into people, grabbing a hot pan) and to engagement in potentially dangerous activities without consideration of possible consequences (e.g., riding a skateboard over extremely rough terrain) (DSM-IV, 1994).

Both ADD and ADHD are very problematic and extreme learning disabilities. Assessment, diagnosis and recommendations greatly aid students with this condition.

**Aphasic Disorders (Phonological Disorders)**

Aphasic disorders, being more noticeable than some other conditions, have been around longer thus more research and development have been done on them. Aphasic disorders are speech malfunction disorders not necessarily linked with physiological speech impediments.

The essential feature of Phonological Disorder is a failure to use developmentally expected speech sounds that are appropriate for the individual's age and dialect. This may involve errors in sound production, use, representation, or organization such as, but not limited to, substitutions of one sound for another (use of /t/ for target /k/ sound) or omissions of sounds (e.g., final consonants). The difficulties in speech sound production interfere with academic or occupational achievement or with social
communication. If Mental Retardation, a speech-motor or sensory deficit, or environmental deprivation is present, the speech difficulties are in excess of those usually associated with these problems.

Phonological Disorder includes phonological production (i.e., articulation) errors that involve the failure to form speech sounds correctly and cognitively based forms of phonological problems that involve a deficit in linguistic categorization of speech sounds (e.g., a difficulty in sorting out which sounds in the language make a difference in meaning). Severity ranges from little or no effect on speech intelligibility to completely unintelligible speech. Sound omissions are typically viewed as more severe than are sound substitutions, which in turn are more severe than sound distortions. The most frequently misarticulated sounds are those acquired later in the developmental sequence (l, r, s, z, th, ch), but in younger or more severely affected individuals, consonants and vowels that develop earlier may also be affected. Lisping (i.e., misarticulation of sibilants) is particularly common. Phonological Disorder may also involve errors of selection and ordering of sounds within syllables and words (e.g., aks for ask).

Although there may be an association with clear causal factors such as hearing impairment, structural deficits of
the oral peripheral speech mechanism (e.g., cleft palate), neurological conditions (e.g., cerebral palsy), cognitive limitations (e.g., Mental Retardation), or psychosocial problems, at least 2.5% of preschool children present with Phonological Disorders of unknown or suspect origin, which are often referred to as functional or developmental. There may be a delayed onset of speech.

Aphasia is considered as a learning disability as it affects reading, vocalization, socialization, and may hinder occupational social and academic situations (DSM-IV, 1994).

Stuttering

Stuttering is not a phonological disorder but may be surrounded or include phonological symptoms.

The essential feature of Stuttering is a disturbance in the normal fluency and time patterning of speech that is inappropriate for the individual's age. This disturbance is characterized by frequent repetitions or prolongations of sounds or syllables. Various other types of speech dysfluencies may also be involved, including interjections, broken words (e.g., pauses within a word), audible or silent blocking (filled or unfilled pauses in speech), circumlocutions (i.e., word substitutions to avoid problematic words), words produced with an excess of physical tension, and monosyllabic whole word repetitions.
(e.g., "I-I-I-I see him"). The disturbance in fluency interferes with academic or occupational achievement or with social communication. If a speech-motor or sensory deficit is present, the speech difficulties are in excess of those usually associated with these problems. The extent of the disturbance varies from situation to situation and often is more severe when there is special pressure to communicate (e.g., giving a report at school, interviewing for a job). Stuttering is often absent during oral reading, singing, or talking to inanimate objects or to pets.

At the onset of Stuttering, the speaker may not be aware of the problem, although awareness and even fearful anticipation of the problem may develop later. The speaker may attempt to avoid stuttering by linguistic mechanisms (e.g., altering the rate of speech, avoiding certain speech situations such as telephoning or public speaking, or avoiding certain words or sounds). Stuttering may be accompanied by motor movements (e.g., eye blinks, tics, tremors of the lips or face, jerking of the head, breathing movements, or fist clenching). Stress or anxiety have been shown to exacerbate Stuttering. Impairment of social functioning may result from associated anxiety, frustration, or low self-esteem. In adults, Stuttering may limit occupational choice or advancement. Phonological Disorder
and Expressive Language Disorder occur at a higher frequency in individuals with Stuttering than in the general population (DSM-IV, 1994).

**Autistic Disorders**

Autistic disorders have been known about and researched for a long time but still aren't very well understood as they may involve behavioral (traumatic stress situations) or physiological factors or both.

The essential features of Autistic Disorder are the presence of markedly abnormal or impaired development in social interaction and communication and a markedly restricted repertoire of activity and interests. Manifestations of the disorder vary greatly depending on the developmental level and chronological age of the individual.

The impairment in reciprocal social interaction is gross and sustained. There may be marked impairment in the use of multiple nonverbal behaviors (e.g., eye-to-eye gaze, facial expression, body postures and gestures) to regulate social interaction and communication. There may be failure to develop peer relationships appropriate to developmental level that may take different forms at different ages.

The impairment in communication is also marked and sustained and affects both verbal and nonverbal skills. There may be delay in, or total lack of, the development of
spoken language. In individuals who do speak, there may be marked impairment in the ability to initiate or sustain a conversation with others, or a stereotyped and repetitive use of language or idiosyncratic language. There may also be a lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level. When speech does develop, the pitch, intonation, rate, rhythm, or stress may be abnormal (e.g., tone of voice may be monotonous or contain questionlike rises at ends of statements). Grammatical structures are often immature and include stereotyped and repetitive use of language (e.g., repetition of words or phrases regardless of meaning; repeating jingles or commercials) or metaphorical language (i.e., language that can only be understood clearly by those familiar with the individual's communication style). A disturbance in the comprehension of language may be evidenced by an inability to understand simple questions, directions, or jokes. Imaginative play is often absent or markedly impaired. These individuals also tend not to engage in the simple imitation games or routines of infancy or early childhood or do so only out of context or in a mechanical way.

Individuals with Autistic Disorder have restricted, repetitive, and stereotyped patterns of behavior, interests,
and activities. There may be an encompassing preoccupation
with one or more stereotyped and restricted patterns of
interest that is abnormal either in intensity or focus; an
apparently inflexible adherence to specific, nonfunctional
routines or rituals; stereotyped and repetitive motor
manners; or a persistent preoccupation with parts of
objects. Individuals with Autistic Disorder display a
markedly restricted range of interests and are often
preoccupied with one narrow interest (e.g., with amassing
facts about meteorology or baseball statistics). They may
line up an exact number of play things in the same manner
over and over again or repetitively mimic the actions of a
television actor. They may insist on sameness and show
resistance to or distress over trivial changes (e.g., a
younger child may have a catastrophic reaction to a minor
change in the environment such as a new set of curtains or a
change in place at the dinner table). There is often an
interest in nonfunctional routines or rituals or an
unreasonable insistence on following routines (e.g., taking
exactly the same route to school every day). Stereotyped
body movements include the hands (clapping, finger flicking)
or whole body (rocking, dipping, and swaying). Abnormalities
of posture (e.g., walking on tiptoe, odd hand movements and
body postures) may be present. These individuals show a
persistent preoccupation with parts of objects (buttons, parts of the body). There may also be a fascination with movement (e.g., the spinning wheels of toys, the opening and closing of doors, an electric fan or other rapidly revolving object). The person may be highly attached to some inanimate object (e.g., a piece of string or a rubber band) (DSM-IV, 1994).

By adulthood autism has usually been assessed and diagnosed but adults with this condition as a learning disability still very much need remediation.

Summary

The first thing educators may want to do to recognize adult learning disabilities would be to become aware of them and the significance it might make to improve a student's learning ability and quality of educational and life situations for that student. This chapter summarized some of the typical learning disabilities that an instructor may discover while in contact with their students. An attempt was made to be concise as there are a lot of controversial issues within learning disability theory and the thesis project design was to specifically deal with the recognition of adult learning disabilities.
CHAPTER THREE

Methodology

Introduction

Chapter Three details the specific development of an easy glance matrix, and the thesis design project handbook: "Recognizing Adult Learning Disabilities." For use by educators to identify traits, behaviors, and characteristics of adult students with learning disabilities and possibly assist them. The population served is addressed which is followed by an overview of the matrix and handbook development process, as well as the handbook resources and content validation. Finally, the matrix and handbook design are presented with a summary conclusion.

Population Served

The implementation of the matrix and handbook are designed to aid instructors, teachers, and educators to identify and assist adults with learning disabilities. The matrix and handbook present an overview of symptoms (traits, behaviors, and characteristics) of adults with learning disabilities which if discovered would serve the population of adults with learning disabilities. Ultimately, if these adults with learning disabilities become identified and assisted, and become productive members of society, the entire community would be served.
Matrix and Handbook Development

This thesis design project was developed out of the need and concern to advance causes in adult education. It was developed from reviewing many scientific and scholarly journal articles as well as the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM-IV). A logical sequence of progression for a system of identification was attempted in the matrix and handbook development. Set up of the matrix and handbook may allow the facilitator to make decisions based on directed procedures and resources. Discovery and assistance techniques were developed in the matrix and handbook. Implementation would involve becoming knowledgeable about adult learning disabilities through reviewing the matrix and handbook. That is why the matrix and handbook were developed.

Matrix and Handbook Resources and Content Validation

The resources for the vision of the matrix and handbook, "Recognizing Adult Learning Disabilities," are based on twenty years of experience in the field of education and reviewing many scientific and scholarly journal articles including the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM-IV). The author has a Bachelor of Arts in Psychology and many college courses pertaining to adult education. A lot of ideas for
the development of this project came specifically from the author's Designated Subject Instructors Credential in Adult Education from California State University, San Bernardino.

**Matrix and Handbook Design**

The matrix and handbook were designed to aid adult educators in facilitating adults with learning disabilities. There are five components: Introduction; Symptom Descriptions; Resources for Assistance; Conclusions; and Matrix.

Section One Introduction outlines the objectives of the handbook and will cross-reference some of the chapters included in the thesis. Section Two Symptom Descriptions will give specific box descriptions of the traits, behaviors, and characteristics of adult learning disabilities directly from the most current DSM-IV. Section Three Resources for Assistance will give some limited recommendations for instructors and educators by which they may refer students for correct assessment diagnosis, evaluation, and recommendations by professionals in the field. Section Four Conclusions will briefly cross-reference some of the chapters included in the thesis and add a few more specific recommendations for instructors and educators. Section Five Matrix provides an easy glance chart by which
instructors and educators can get an overview of the symptoms of eleven predominant adult learning disabilities.

**Summary**

The methodology for the development of the thesis design project, "Recognizing Adult Learning Disabilities," was stated. The population served was addressed followed by an overview of resources, content validation, and the actual design of the project.
CHAPTER FOUR

Conclusions and Recommendations

Introduction

Included in Chapter Four is a presentation of the conclusions gathered as a result of completing this project. Further, the recommendations extracted from this project are presented. Lastly, the chapter concludes with a summary.

Conclusions

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

Attention: The instructor may notice on the part of the student a difficulty concentrating or focusing; is easily distracted; difficulty 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 concerns for consequences, saying one thing and meaning another, blurts out answers, interrupts); displays memory problems.

Organization: The instructor may notice on the part of the student 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).

Social: The instructor may notice that the student finds social situations difficult, is noticeably out of place in group settings; 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.

Other General Behaviors: The instructor may notice on the part of the student variable or unpredictable performance; difficulty absorbing major ideas from 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; perseverance (staying on task or using a procedure past the point of being appropriate); rigidity (National ALLD Center, 1999).
It is important to note that many of these observed learning disability 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 they have seen. In both instances, the central nervous system is not processing the 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 and symbols effectively; the resulting disabilities are apparent in reading, writing, spelling, and math skills.

Then, to successfully teach an academic or competency based vocational subject to an adult learner educators will need to know, or will discover along the way, some of the background (physiologically and behaviorally) which might affect that student's performance. A teacher may have
several students. However, they may be able to access over time (by being knowledgeable and aware of the problems that are involved in learning disabilities of adult learners) a way to aid that student in being more successful in their attempts at education, career or job advancement, and a healthier, better life for themselves and others around them.

If you are an instructor, teacher, or educator and you think you notice (through your knowledge and experience) a problem a student might have, that if corrected may result in the student performing better, the instructor may want to suggest to the student or refer them to the appropriate professional for screening and assessment.

Recommendations

Samples of the adult 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: reviews of school, medical, and employment records (wherein patterns of problems may be evident and should be noted); 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 disability; a screening questionnaire and; a screening tool (an instrument for which the instructor should be trained to use). A screening tool is different than a screening questionnaire. A screening tool may be a standardized test that screens for multiple intelligence or learning style factors.

Obviously the instructor 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 instructor 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 enables the instructor to include the learner in determining appropriate instruction.
- Informal screening opens the door for discussion between the instructor 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 instructor and the learner about realistic long-range goals translated into short-term objectives.

• Screening helps the instructor identify special materials and strategies to be used in setting up an individualized learning situation for that student.

For follow-up, the instructor needs to be aware of local sources of testing and other services to which the learner can be referred. The adult education program the instructor is aligned with should have a list of recommended resources. Depending on the particular locale, these resources should 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 the universities or local community colleges, 4) educational therapists or learning specialists in private practice, and 5) Orton Dyslexia Society, the local chapter of Learning Disabilities of America (LDA), 7) private schools or institutions specializing in learning disabilities, and 8) university affiliated hospitals.
Instructors can be a vital link in the overall assessment process. If the adult 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 (National ALLD Center, 1995).

Further recommendations would be that instructors realize that the majority of adult learners today did not have the benefits of screening and assessment or special programs when they were children, as the theory of learning disabilities was in its infancy or did not even exist in 1950 in the United States. Therefore, many adult learners today have never been assessed. Since it was stated earlier in the thesis that childhood learning disabilities persist throughout an individual's life this is a key recommendation. It is also recommended that if an apparent learning disability does not seem to be hindering an individual then it is advisable not to interfere, to accept the premise that maybe the individual and/or their family have worked it out for themselves. Lastly, a recommendation in the form of a plea for teachers, instructors, and educators. They have a tremendous amount of power and
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SECTION ONE

INTRODUCTION
Objective

The purpose of the matrix and handbook was to conceive of a clear and concise means by which an instructor or educator may be able to recognize or identify adults with learning disabilities (identify traits, behaviors and characteristics). Specific box descriptions from the most current Diagnostic and Statistical Manual of the American Psychiatric Association DSM-IV will be included. A section on resources for assistance, which will give some limited suggestions for instructors and educators by which they may refer students for correct assessment, diagnosis, evaluation, and recommendations by professionals in the field will be included.

Overview of the Assessment Process

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

Teachers and instructors need informal measures for determining whether or not a particular learner may have a
learning disability. The information gathered by the instructor can be particularly valuable for planning a practical approach to helping the individual with a learning disability meet realistic goals. In fact, the information gathered by the instructor 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 student'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 (instructor) — typically an individual who does not have a specialized background in learning disabilities — plans and executes an individualized program for the learner, often 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.
Screening is an initial step in the process of gathering pertinent information about the individual with a suspected learning disability. The instructor can attain much valuable information if they know what to look for. In terms of academic performance and related behaviors, what kind of observations will the instructor 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 or psychological manifestations that could interfere with the learning process? (National ALLD Center, 1995).

To help the adult learner that may have a learning disability the instructor may want to think through the answers to these questions.
SECTION TWO

SYMPTOM DESCRIPTIONS
Introduction

Professionals in the field of assessment and diagnosis of adult learning disabilities use many instruments to gauge whether an individual adult may have a learning disability. The diagnostic and statistical manual of the American Psychiatric Association (DSM-IV) is only one gauge. It is the example chosen for use in the handbook for most categories.

Specific Descriptions (Traits, Behaviors, Characteristics)

The Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, American Psychiatric Association, 1994) is the classification system typically used by psychologists and other private evaluators for identification and labeling of disorders for children and adults. The DSM-IV does not include the term learning disabilities as a single category. Rather, learning disabilities become defined under the following categories of learning disorders: reading disorders; mathematics disorders; disorders of written expression; and not otherwise specific (NOS) disorders. In the same DSM-IV chapter (but not included in the index under a reference for learning disabilities) are categories of phonological disorders, expressive language disorders, mixed receptive or expressive language disorders, and motor disorders. The DSM-IV clearly defines learning disabilities
as a disorder of academic underachievement using a discrepancy-based model (Greg, McKinley, & Johnson, 1996).

**Dyslexia**

There are many types and aspects involved in the definition of dyslexia. A simple definition is that the students that show signs of dyslexia have a tendency to reverse numbers or letters or to see them incorrectly.

**Diagnostic Criteria for Dyslexia**

- **Automatization Aspects**

  A. Speed limitations in word identification
  
  B. Sensitivity to increasing task demands
  
  C. Orthographic compensation (which include the quality of the numbers or letters being represented as well as the correct order or spelling of the numbers or letters that are being represented (Van der Leij and Van Daal, 1999).

**Color Blindness**

A simple definition for color blindness is that the student has a tendency to see colors incorrectly, which in some instances distorts or affects vision. Color blindness would affect a student's ability to read, write, or in social or vocational aspects of living.
Diagnostic Criteria for Color Blindness

A. Unable to tell certain colors apart, especially red and green.

B. Unable to perceive different colors or any colors.

C. Confuse or distort choices in processing (Scott, Foresman Advanced Dictionary, 1997).

Tic Disorder

A tic is a sudden, rapid, recurrent non rhythmic, stereotyped motor movement or vocalization.

Diagnostic Criteria for Tic Disorder

A. Both multiple motor and one or more vocal tics have been present at some time during the illness, although not necessarily concurrently. (A tic is a sudden, rapid, recurrent, nonrhythmic, stereotyped motor movement or vocalization.

B. The tics occur many times a day (usually in bouts) nearly every day or intermittently throughout a period of more than 1 year, and during this period there was never a tic-free period of more than 3 consecutive months.

C. The disturbance causes marked distress or significant impairment in social, occupational, or other important areas of functioning.

D. The onset is before 18 years.

The disturbance is not due to the direct physiological effects of a substance (e.g., stimulants) or a general medical condition (e.g., Huntington's disease or postviral encephalitis) (DSM-IV, 1994).
Tourette's Syndrome

Tourette's syndrome is in the family of tic disorders. The most common associated symptoms of Tourette's Disorder are obsessions and compulsions. Hyperactivity, distractibility, and impulsivity are also relatively common. Social discomfort, shame, self-consciousness, and depressed mood frequently occur. Social, academic, and occupational functioning may be impaired because of rejection by others or anxiety about having tics in social situations. In severe cases of Tourette's Disorder, the tics may directly interfere with daily activities (e.g., reading or writing). Rare complications of Tourette's Disorder include physical injury, such as blindness due to retinal detachment (from head banging or striking oneself), orthopedic problems (from knee bending, neck jerking, or head turning), and skin problems (from picking). The severity of the tics may be exacerbated by administration of central nervous system stimulants, which may be a dose-related phenomenon. Obsessive-Compulsive Disorder, Attention-Deficit/Hyperactivity Disorder, and Learning Disorders may be associated with Tourette's Disorder.
Diagnostic Criteria for Tourette's Disorder

A. Simple motor tics include eye blinking, neck jerking, shoulder shrugging, facial grimacing, and coughing.
B. Simple vocal tics include throat clearing, grunting, sniffing, snorting, and barking.
C. Complex motor tics include facial gestures, grooming behaviors, jumping, touching, stamping, and smelling an object.
D. Complex vocal tics include repeating words or phrases out of context, coprolalia (use of socially unacceptable words, frequently obscene), palilalia (repeating one's own words or sounds) and echolalia (repeating the last-heard sound, word or phrase.
E. Echokinesis (imitation of someone else's movements) (DSM-IV, 1994).

Scotopic Sensitivity Syndrome

Irlen Institute defines scotopic sensitivity syndrome in that individuals exhibit an unusual sensitivity to specific frequencies and wave lengths of the white light spectrum in their vision (which affects their perception).

Diagnostic Criteria for Scotopic Sensitivity Syndrome

A. Sensitivity to specific frequencies and wave length of the white light spectrum which affects their vision.
B. The retina of the eye may become over-stimulated and send incorrect signals to the brain.
C. Irlen's Syndrome is a perceptual dysfunction affecting mainly reading, writing, and mathematical activities (Irlen Institute, 1999).

Behavior Disorders

Behavior disorders were formerly not included in the definition of learning disabilities. However, within the
current Rehabilitation Services Administration definition it states that a disorder that manifests itself with a deficit in one or more of the following areas; attention, reasoning, processing, memory, communication, reading, writing, spelling, calculation, coordination, social competence and emotional maturity, may be a learning disability.

**Diagnostic Criteria for Conduct Disorder**

A. A repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated, as manifested by the presence of three (or more) of the following criteria in the past 12 months, with at least one criterion present in the past 6 months.

**Aggression to people and animals**

(1) often bullies, threatens, or intimidates others
(2) often initiates physical fights
(3) has used a weapon that can cause serious physical harm to others (e.g., a bat, brick, broken bottle, knife, gun)
(4) has been physically cruel to people
(5) has been physically cruel to animals
(6) has stolen while confronting a victim (e.g., mugging, purse snatching, extortion, armed robbery)
(7) has forced someone into sexual activity

**Destruction of property**

(8) has deliberately engaged in fire setting with the intention of causing serious damage
(9) has deliberately destroyed others' property (other than by fire setting)
Diagnostic Criteria for Conduct Disorder

Deceitfulness or theft
(10) has broken into someone else's house, building, or car
(11) often lies to obtain goods or favors or to avoid obligations (i.e., "cons" others)
(12) has stolen items of nontrivial value without confronting a victim (e.g., shoplifting, but without breaking and entering; forgery)
(13) Serious violations of rules
(14) often stays out at night despite parental prohibitions, beginning before age 13 years

Diagnostic Criteria for Conduct Disorder Continued
(15) has run away from home overnight at least twice while living in parental or parental surrogate home (or once without returning for a length period)
(16) is often truant from school, beginning before age 13 years

B. The disturbance in behavior causes clinically significant impairment in social, academic, or occupational functioning.

C. If the individual is 18 years or older, criteria are not met for Antisocial Personality Disorder.

Specify type based on age at onset:

Childhood-Onset Type: onset of at least one criterion characteristic of Conduct Disorder prior to age 10 years
Adolescent-Onset Type: absence of any criteria characteristic of Conduct Disorder prior to age 10 years

Specify severity:

Mild: few if any conduct problems in excess of those required to make the diagnosis and conduct problems cause only minor harm to others
Moderate: number of conduct problems and effect on others intermediate between "mild" and "severe"
Severe: many conduct problems in excess of those required to make the diagnosis or conduct problems cause considerable harm to others (DSM-IV, 1994).
Attention Deficit Disorder (ADD)

There is still much ongoing research being conducted dealing with attention deficit disorder (ADD). A simple definition would be that a student is unable to focus attention sufficiently which may disrupt attempts at learning academic subjects or completing tasks such as competency based programs.

Attention Deficit/Hyperactivity Disorder (ADHD)

There is still much ongoing research being conducted dealing with ADHD. It has been found recently that ADHD may be linked to or part of the symptoms of dyslexia. A simple way to describe ADHD would be that a student is unable to focus attention and his hyperactive or impulsive behavior.
Diagnostic criteria for ADD and ADHD

A. Either (1) or (2):

(1) six (or more) of the following symptoms of inattention have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

**Inattention**

(a) often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities
(b) often has difficulty sustaining attention in tasks or play activities
(c) often does not seem to listen when spoken to directly
(d) often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions)
(e) often has difficulty organizing tasks and activities
(f) often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
(g) often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)
(h) is often easily distracted by extraneous stimuli
(i) is often forgetful in daily activities

(2) six (or more) of the following symptoms of **hyperactivity-impulsivity** have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:
Hyperactivity

(a) often fidgets with hands or feet or squirms in seat
(b) often leaves seat in classroom or in other situations in which remaining seated is expected
(c) often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness
(d) often has difficulty playing or engaging in leisure activities quietly
(e) is often "on the go" or often acts as if "driven by a motor"
(f) often talks excessively

Impulsivity

(g) often blurts out answers before questions have been completed
(h) often has difficulty awaiting turn
(i) often interrupts or intrudes on others (e.g., butts into conversations or games)

B. Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age 7 years.

C. Some impairment from the symptoms is present in two or more settings (e.g., at school [or work] and at home).

D. There must be clear evidence of clinically significant impairment in social, academic, or occupational functioning.

E. The symptoms do not occur exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder and are not better accounted for by another mental disorder (e.g., Mood Disorder, Anxiety Disorder, Dissociative Disorder, or a Personality Disorder).
Code based on type:

314.01 Attention-Deficit/Hyperactivity Disorder, Combined Type: if both Criteria A1 and A2 are met for the past 6 months
314.00 Attention-Deficit/Hyperactivity Disorder, Predominantly Inattentive Type: if Criterion A1 is met but Criterion A2 is not met for the past 6 months
314.01 Attention-Deficit/Hyperactivity Disorder, Predominantly Hyperactive-Impulsive Type: if Criterion A2 is met but Criterion A1 is not met for the past 6 months

Coding note: For individuals (especially adolescents and adults) who currently have symptoms that no longer meet full criteria, "In Partial Remission" should be specified (DSM-IV, 1994).

Aphasic Disorders (Phonological Disorders)

Aphasic disorders, phonological disorders, and communicative disorders are speech malfunction disorders not necessarily linked with physiological speech impediments.

Diagnostic Criteria for Phonological Disorders

A. Failure to use developmentally expected speech sounds that are appropriate for age and dialect (e.g., errors in sound production, use, representation, or organization such as, but not limited to, substitutions of one sound for another [use of /t/ for target 'j' sound] or omissions of sounds such as final consonants).

B. The difficulties in speech sound production interfere with academic or occupational achievement or with social communication.

C. If Mental Retardation, a speech-motor or sensory deficit, or environmental deprivation is present, the speech difficulties are in excess of those usually associated with these problems (DSM-IV, 1994).
Stuttering

Stuttering is not a phonological disorder but may be surrounded by or include phonological symptoms.

<table>
<thead>
<tr>
<th>Diagnostic Criteria for Stuttering</th>
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<tbody>
<tr>
<td>A. Disturbance in the normal fluency and time patterning of speech (inappropriate for the individual's age), characterized by frequent occurrences of one or more of the following;</td>
</tr>
<tr>
<td>(1) sound and syllable repetitions</td>
</tr>
<tr>
<td>(2) sound prolongations</td>
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<tr>
<td>(3) interjections</td>
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<tr>
<td>(4) broken words (e.g., pauses within a word)</td>
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<tr>
<td>(5) audible or silent blocking (filled or unfilled pauses in speech)</td>
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<tr>
<td>(6) circumlocutions (word substitutions to avoid problematic words)</td>
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<tr>
<td>(7) words produced with an excess of physical tension</td>
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<tr>
<td>(8) monosyllabic whole-word repetitions (e.g., &quot;I-I-I-I see him&quot;)</td>
</tr>
<tr>
<td>B. The disturbance in fluency interferes with academic or occupational achievement or with social communication.</td>
</tr>
<tr>
<td>C. If a speech-motor or sensory deficit is present, the speech difficulties are in excess of those usually associated with these problems (DSM-IV, 1994).</td>
</tr>
</tbody>
</table>

Autistic Disorders

Autistic disorders have been known about and researched for a long time, but still aren't very well understood as they may involve behavioral (traumatic stress situations) or physiological factors or both.
Diagnostic criteria for Autistic Disorder

A. A total of six (or more) items from (1), (2), and (3), with at least two from (1), and one each from (2) and (3):

1. qualitative impairment in social interaction, as manifested by at least two of the following:
   - marked impairment in the use of multiple nonverbal behaviors such as eye-to-eye gaze, facial expression, body postures, and gestures to regulate social interaction
   - failure to develop peer relationships inappropriate to developmental level
   - a lack of spontaneous seeking to share enjoyment, interests, or achievements with other people (e.g., by a lack of showing, bringing, or pointing out objects of interest)
   - lack of social or emotional reciprocity

2. qualitative impairments in communication as manifested by at least one of the following:
   - delay in, or total lack of, the development of spoken language (not accompanied by an attempt to compensate through alternative modes of communication such as gesture or mime)
   - in individuals with adequate speech, marked impairment in the ability to initiate or sustain a conversation with others
   - stereotyped and repetitive use of language or idiosyncratic language
   - lack of varied, spontaneous make-believe play or social imitative play appropriate to developmental level
### Diagnostic criteria for Autistic Disorder Cont

(3) restricted repetitive and stereotyped patterns of behavior, interests, and activities, as manifested by at least one of the following:

- (a) encompassing preoccupation with one or more stereotyped and restricted patterns of interest that is abnormal either in intensity or focus
- (b) apparently inflexible adherence to specific, nonfunctional routines or rituals
- (c) stereotyped and repetitive motor mannerisms (e.g., hand or finger flapping or twisting, or complex whole-body movements)
- (d) persistent preoccupation with parts of objects

**B.** Delays or abnormal functioning in at least one of the following areas, with onset prior to age 3 years:

1. (1) social interaction,
2. (2) language as used in social communication,
3. (3) symbolic or imaginative play.

**C.** The disturbance is not better accounted for by Rett's Disorder or Childhood Disintegrative Disorder (DSM-IV, 1994).

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### Summary

The first thing educators may want to do to recognize learning disabilities would be to become aware of them and the significance it might make to improve a student's learning ability and quality of educational and life situations for that student. This section summarized some of the typical learning disabilities that an instructor may discover while in contact with their students. An attempt was made to be concise as there are a lot of controversial issues within learning disability theory and the handbook was specifically designed to deal with the recognition of adult learning disabilities.
SECTION THREE

RESOURCES FOR ASSISTANCE
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) 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 are developed.

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

CONCLUSIONS
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Then to successfully teach an academic subject, vocational, or job skills to an adult learner educators will need to know, or will discover along the way, some of the background (physiologically or behaviorally) which might affect a student's performance. A teacher may have several students. However, they may be able to assess over time (by being knowledgeable and aware of the problems that are involved in learning disabilities of adult learners) a way to aid that student in being more successful in their attempts at education, career or job advancement, and a healthier, better life for themselves and others around them.

If you are an instructor, teacher, or educator and you think you notice (through your knowledge and experience) a problem a student might have, that if corrected may result in the student performing better, the instructor may want to suggest to the student or refer them to the appropriate professional for screening and assessment. An assessment refers to the gathering of relevant information that can be used to help an adult learner make decisions, and provides for a means for assisting an adult to live more fully. An adult learner is assessed because of problems in employment,
education and/or life situations. An assessment involves more than just taking tests.

An assessment includes an evaluation, a diagnosis, and recommendations to try and help the adult learner overcome their learning disability.
SECTION FIVE

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