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Learning Disabilities: The Definitional Dilemma

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Learning Disabilities: The Definitional Dilemma

BY

Gretchen Burman

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
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Abstract

As professionals in the fields of education and psychology, we often focus on the children who are having difficulty learning in and adjusting to school, children who may have learning disabilities. We examine test results and what they say about how a child learns; we consider what the teacher says about the difficulties the child has in the classroom. Teachers discuss how frustrating it is to work with children who are “slow learners” or who “learn differently.” However, the definition of *learning disability* is so variable that we may fail to identify, or we may over-identify, those with a *learning disability*. This dilemma is demonstrated by the plethora of related issues in the literature: How are these learning difficulties defined? Why and how are these definitions different when compared by state legislation or by function of the disability? How has the history of learning disabilities influenced how we look at and research them today? Do the disabilities appear when students enter school, or disappear with age or with school conclusion? Why is the definition for this too commonly labeled disability so elusive?

Definitions of learning disabilities have been varied, reflecting our lack of knowledge of the learning process for those with LD and the factors that interfere with it, as well as the biases of the researchers. Terminology used in this field has varied as greatly as have the definitions. The definition of learning disability will be examined across time and across dimensions (processing perspective,

neurological perspective, and curricula perspective).

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Introduction

As professionals in the fields of education and psychology, we often focus on the children who are having difficulty learning in and adjusting to school, children who may have learning disabilities. We examine test results and what they say about how a child learns; we consider what the teacher says about the difficulties the child has in the classroom. Teachers discuss how frustrating it is to work with children who are “slow learners” or who “learn differently.” However, the definition of *learning disability* is so variable that we may fail to identify, or we may over-identify, those with a *learning disability*. This dilemma is demonstrated by the plethora of related issues in the literature: How are these learning difficulties defined? Why and how are these definitions different when compared by state legislation or by function of the disability? How has the history of learning disabilities influenced how we look at and research them today? Do the disabilities appear when students enter school, or disappear with age or with school conclusion? Why is the definition for this too commonly labeled disability so elusive?

Definitions of learning disabilities have been varied, reflecting our lack of knowledge of the learning process for those with LD and the factors that interfere with it, as well as the biases of the researchers. Terminology used in this field has varied as greatly as have the definitions. The definition of learning disability will be examined across time and across dimensions (processing perspective,

neurological perspective, and curricula perspective).

Pre-Public Law 94-142

The terms *word blindness* and *dyslexia*, first used in the late 1800s (Silver & Hagin, 1990), were used to describe patients with brain damage who lost the ability to read and write. Later, the emphasis on acquired brain pathology continued as children with learning problems and irritability, hyperactivity, and antisocial behaviors followed an outbreak of influenza and ensuing encephalitis (Silver & Hagin, 1990). The *brain injured* or *brain damaged* child became generally accepted in the 1930s, as the “neuropsychological disturbance in perception and in conceptual thinking” (Silver & Hagin, 1990, p. 7) was the basis in diagnoses.

Two related trends appeared in the literature in the 1950s (see Silver & Hagin, 1990; Critchley, 1964; Strauss & Werner, 1943) which seemed to modify the terms *brain injured* and *brain damaged*; one was the description of *soft* neurological signs; the other was the concept of *developmental lag*. The presence of soft signs and developmental lag, such as poor gross and fine motor skills, inattention, and delayed speech and social skills, led to some qualification of the terms *brain injured* and *brain damaged*. The new expression became *minimally brain damaged*.

In 1962, two important events happened in the learning disabilities movement (Critchley, 1964). The International Study Group in Child Neurology

suggested that the term *damage* should be discarded because of its representations of injury to the brain, and the term *dysfunction* should be used instead (Silver & Hagin, 1990). Kirk (1962) proposed the term *learning disability* as a substitute for the term *minimal brain dysfunction*. Kirk's (1962) original definition included references to developmental delays, neurological influences, and emotional/behavioral disturbances. *Learning disability*, in 1967, became *specific learning disability*, as described by the National Advisory Committee on Handicapped Children:

“The term *specific learning disability* means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which disorder may manifest itself in imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. Such term does not include learning problems which are primarily the result of visual, hearing, or motor handicaps, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage,” (National Advisory Committee on Handicapped Children, 1967, p. 3).

Enactment of Public Law 94-142

Processing and Curricular Perspectives

In 1975, the definition of *learning disability* written by the National Advisory Committee on Handicapped Children (essentially the definition given

above) was incorporated into Public Law 94-142. The definition encompasses such an eclectic group of symptoms with such diverse etiologies, however, that related curricular issues emerged. For example, research from the 1980s showed that students with mild learning disabilities receive more time in typical classroom settings than in resource rooms or separate classes (Bateman, 1992). However, McLesky and Pacchiano (1994) stated that although children are serviced on a resource basis, mainstreaming for an area of disability often does not happen. They claim that more restrictive placements for students with learning disabilities are earning them less efficacious learning environments (McLesky & Pacchiano, 1994). However, as Simmons, Fuchs, and Fuchs (1991) observed, a typical classroom teacher does not have time to make and implement all the curricular adaptations that are prerequisite to successful teaching of low achieving and learning disabled students. In these very typical situations, students in mainstream settings, as well as learning disabled students, can suffer.

The field of learning disabilities has gradually shifted from serving children described as having neurological difficulties to serving a variety of children with other problems whose only similarity is that they are experiencing difficulty in school (Stedman and Kaestle, 1987). The fact that learning disabilities are rarely diagnosed before school-age implies a curriculum-based difficulty. At the same time, educational research regarding learning disabilities is infused with articles criticizing a lack of workable educational interventions for students with learning

disabilities. According to Bateman (1992, p. 35), “when all is said and done, the field of learning disabilities must come to grips with its essential, central focus — curriculum”.

The Interagency Committee on Learning Disabilities, mandated as part of the Health Research Extension Act of 1985 (P.L. 99-158), highlighted a new definitional problem brought up through the attempt of so many agencies to redefine *learning disability*: “In recent years, there has developed a consensus that social skills deficit also represents a specific learning disability,” (Interagency Committee on Learning Disabilities, 1987, p. 221). The report recommended that “social skills deficit” be added to the federal regulation. However, the Interagency report notes that the Department of Education could not endorse the addition of social skills deficits to the definition of *learning disability* for two reasons: legal and economic. The Department, apparently, was concerned that this addition would result in increased confusion as to who is eligible for special education services and/or it would increase the number of children who might be classified as learning disabled, thus adding to the cost of special education (Silver & Hagin, 1990). The Department of Education wanted to avoid overidentification of children as learning disabled when their educational needs could be met appropriately in the regular classroom (Interagency Committee on Learning Disabilities, 1987).

More than 40% of all pupils served in special education programs are

classified as learning disabled (Chalfant, 1989). In general, a child's learning disability is a function of his inability to cope with the demands of school; thus, the degree of academic incompetence relative to his/her peers is the main evidence that a child has a specific learning problem (Gaddes, 1985). In a school setting, however, processing difficulties may be less of an issue than are academic competencies (see Algozzine, Ysseldyke, & McGue, 1995).

Neurological Perspective

Intrinsic factors lie within the biological makeup of the child and are expressed in dysfunction of the central nervous system. Diverse neurological factors may be identified (Silver & Hagin, 1990; Teeter & Semrud-Clikeman, 1997). In some children, an organic defect of the central nervous system (e.g. from hypoxia or prematurity) may be found. In others, the dysfunction may result from an unevenness in maturation in which the neuropsychological functions related especially to language do not develop in an age-appropriate fashion. This maturational unevenness can result in perceptual difficulties, metalinguistic functional difficulties, or retention/retrieval difficulties.

The term *specific language learning disability*, the equivalent of developmental dyslexia or a primary reading disability (Rutter, 1978), also included children with brain damage, minimal brain dysfunction, and attention deficit hyperactivity disorder (Silver & Hagin, 1990). Ultimately, a specific language disability is referred to "a group of learning disorders for which no

etiological agent has as yet been found and in whom a constellation of psychoneurological dysfunctions” (Olson et al., 1989, p. 340) are present.

IDEA90 and IDEA97

Processing Perspective

A developmental relationship between central processing abilities and academic achievement has been fairly well demonstrated. Central processing abilities, or the “series of actions or operations conducing to an end,” (Webster’s New Collegiate Dictionary, 1981, p. 910) refers to the speed, type, and route information takes as it is sorted in the brain. The way the brain filters and makes sense of information is generally thought to be similar across individuals; these processes are also thought to be developmentally realized. “It is now well established that beginning academic skills predominantly require lower level cognitive abilities, and that higher, more conceptual academic abilities require higher level central processing abilities,” (Michigan Association of Learning Disabilities Educators, 1998, p. 2). Determining that an individual’s pattern of central processing strengths and weaknesses is consistent with his/her pattern of academic strengths and weaknesses raises the probability that any identified problems with academic achievement are related to internal central processing difficulties, rather than to external factors (such as poor or inadequate educational opportunity). This begs the conclusion that a central processing difficulty portion of a learning disability, present since before a child enters school, is more critical

than the child's academic achievements.

Although P.L. 94-142, now the Individuals with Disabilities Education Act of 1990 (IDEA90) remains government policy, many groups have attempted redefinition of *learning disability*. According to Chalfant (1989), by focusing on the inter-individual discrepancy between academic achievement and intellectual potential (e.g. using age or grade norm comparisons or statistically significant ability - achievement discrepancies), the federal rules and regulations have led state departments and local educational agencies away from the consideration of intra-individual difference, which may help delineate the definitional criteria of learning disability:

Dysfunctions in one or more of the psychological processes, such as attention, memory, language, visual-perceptual-motor abilities, concept formation, or problem solving, can interfere with learning. When children develop normally in some functions and are significantly delayed in the development of other functions, these discrepancies may be indicative of learning disabilities (Chalfant, 1989, p. 395).

Chalfant seems to be proffering that a large IQ - achievement discrepancy may be indicative of the severity of the learning disability, and that an intra-individual discrepancy may indicate the basis of a cognitive processing problem. Currently, the Individuals with Disabilities Education Act Amendments of 1997 (IDEA97) includes in its definition of specific learning disability "such conditions

as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia,” (Individuals with Disabilities Education Act Amendments of 1997, p. 19). These perceptual and physiological terms (e.g. perceptual disabilities; minimal brain dysfunction), which have been used in the past, serve to broaden an already overburdened category. The term *minimal brain dysfunction* seemed to lead to a purer definition of another disorder, attention deficit/hyperactivity disorder. *Developmental aphasia* is also a speech and language disorder; and the term *dyslexia* is as broad and all-encompassing term as is learning disability!

IDEA, as does PL 94-142, defines a child with a learning disability as one who “has a disorder in one or more of the basic psychological processes in understanding and using language, spoken or written” but where this disorder is “not primarily the result of visual, hearing, or motor handicaps, mental retardation, emotional disturbance, or cultural or economic disadvantage,” (IDEA of 1990, p. 1107). Although there are both inclusionary and exclusionary factors, it does not describe how to assess “a disorder of the basic psychological processes,” and has been used as a dumping ground for all children with other categorical disabilities who present learning problems beyond those of other children, as described by Bateman (1992, p. 32) as “no known cause for persistent learning difficulties”. Also according to Bateman, the common feature we are probably seeking “is that children should be labeled learning disabled only when they are not mentally

retarded but have more severe difficulty in acquiring, applying, and retaining information than we would predict from the other information we have about that child and his or her instruction,” (1992, p. 32). That is, a child should be said to have a learning disability when he/she is having difficulty learning in school which is not primarily caused by environmental issues. However, even Bateman does not address how this section of the definition may be objectively applied.

It is interesting to note that recent findings have been taken into consideration under the new IDEA97 definitional regulations, as perceptual disabilities are now an inclusionary part of the LD definition. Visual perceptual difficulties seem to be related to reading disabilities, and verbal based reading disabilities may be caused by auditory-perceptual problems (Gerber, 1993). The student’s processing problems must interfere with classroom performance in order for the label of *learning disability* to be applied under IDEA97. Some classroom indicators of learning disabilities include lack of organizational skills (verbal, mental manipulators, spatial), lack of speed in processing, difficulties with reading out loud, difficulties with mathematics, and poor social perceptual abilities.

However, the inclusion of perceptual disorders as part of the *learning disabilities* label makes defining the term even more complicated. To provide discrepancy criteria for yet another source of disability is difficult. In fact, after looking at definitional criteria used nation wide, the National Institute of Child Health and Human Development (NICHD), in 1994, concluded that “exclusionary

definitions using discrepancy criteria appear invalid, particularly in the area of basic reading skills; a definition must be developed within a longitudinal developmental perspective unbiased by prior assumptions reflected in current definitions,” (National Assessment of Educational Progress Results, 1994, Appendix C).

Neurological Perspective

Preschool

Although further research investigating the relationship between neurological variations in infancy and early childhood and learning deficits is needed, there are some initial results that clarify this relationship. In general, studies have found that children with LD have deficits in auditory processing in the left hemisphere during language tasks (Teeter & Semrud-Clikeman, 1997). Olswang, Rodriguez, and Timler (1998) reported that children with phonological deficits show deficits on “neuropsychological measures, including phonemic hearing, segmenting, and blending; verbal reception, repetition, and memory storage; and verbal output” (p. 29). Teeter and Semrud-Clikeman (1997) also suggests that the “source of the disabled child’s difficulties may be primarily in the inability of either the left or right hemisphere to assume a dominant role in the processing of only verbal material” (p. 158).

School Age

The most recent in a progression of revisions of the definition of learning

disability has been constructed by the National Joint Committee on Learning Disabilities (NJCLD); the NJCLD has consistently revised its definition of LD, and also recently stated that LD often co-occurs with attention deficit hyperactivity disorder (Markel & Greenbaum, 1996), along with other problems. As regards a working definition of *learning disability*, the NJCLD states:

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 a 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 result of those conditions or influences (NJCLD, 1988, p. 1).

Key research in the area of learning disabilities indicates that distractibility, impulsivity, and hyperactivity are commonly linked with reading disabilities -- a specific type of learning disability (Lyon & Chhabra, 1996). It is not uncommon

to find that 3% to 15% of children in early elementary grades have been labeled *slow readers* (Kamhi & Catts, 1989). Reading difficulties have been given several names including specific reading disability, reading disability, dyslexia, and developmental dyslexia (Kamhi & Catts, 1989). One of the most succinct definitions, which also reinforces the processing component of a learning disability, comes from the World Federation of Neurology, and unlike exclusionary definitions, this describes behaviors presented by children with dyslexia:

Dyslexia is experienced by children of adequate intelligence, as a general language deficit which is a specific manifestation of a wider limitation in processing all forms of information in short-term memory, be they visually or auditorally presented. This wider limitation exhibits itself in tasks requiring the heaviest use and access to short term memory, such as reading, but particularly spelling (Thomson, 1984, p.12).

Brewer, Moore, and Hiscock (1997) found that 42% of a nonrandom sample of children with neurofibromatosis, an inflammation of the lining of the neurofibrils, met the discrepancy criteria for learning disability categorization, which is well above the literature estimate of 2% to 15% of prevalence for LD in the general population of children. Brewer et al. (1997) concluded that, as neuropsychological tests proved useful in identifying these children and in identifying the control group (who did not have neurofibromatosis) as students

with LD, learning disabilities may be neurologically related. The diagnostic accuracy, reliability, and validity of these results, however, remain unknown, as no one method of diagnosis or definition has been agreed on in this or in any domain. Additionally, neurological assessment of all suspected learning disabled persons seems to be unrealistic because of the expense and time involvement necessary.

Adult

Bigler (1992) and Larsen, Høien, Lundberg, and Odegaard (1990) provided a compilation of evidence that showed a significant neurological difference between adults with learning disabilities and adults without learning disabilities. Bigler (1992, p. 495) detailed the history of neurobiological foundations of learning disabilities, and stated that research to date showed a distinction in brain symmetry and neural plasticity in adults with learning disabilities. Larsen et al. (1990) lent credence to the hypothesis that learning disabilities are a developmental, as well as a school-based, disorder, with their findings regarding the brain size and symmetry differences of learning disabled versus non-learning disabled adolescents.

Curriculum Perspective

Preschool

The definitions of learning disabilities seem to function simultaneously as theory and as policy. This not only affects the way learning disabilities are conceptualized, but also affects identification and classroom placements, as we

have seen. Circumstances often determine the use of a particular definition, which may have a profound impact on the life of the individual with learning disabilities. For example, if, for the sake of efficiency, the district uses a discrepancy model as its definition, a student with a processing difficulty that shows up in only one area tested may not qualify for Special Education services in that given district. This child would struggle in the regular classroom, and possibly suffer frustration, a loss of self-esteem at not being able to achieve, become a behavioral problem, and then would possibly be re-evaluated for Special Education Services for a different problem — emotional or behavioral difficulties. Learning disability (LD) is one of the most common diagnoses made by multidisciplinary evaluation teams, and yet 59% of professionals note a lack of consensus about the definition of the term learning disability (Gerber, 1993). According to IDEA97, a learning disability is:

a disorder in which one or more of the basic psychological processes that are involved in understanding or using language (spoken or written) appears as an imperfect ability to: listen, think, speak, read, write, spell, do math. Such term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. It does not include: any learning problem related to visual, hearing, or motor impairments; problems resulting from environmental, cultural, or economic disadvantage; emotional disturbance; or mental retardation.

There must be a discrepancy between intellectual ability (must

demonstrate average or above average intelligence) and actual achievement in one or more of the seven following areas: oral expression, listening comprehension, written expression, basic reading skills, reading comprehension, math calculation, or math reasoning. There must be a cognitive processing deficit which is: chronic and intrinsic, exists across settings and situations, monitored using multiple measures, and assessed by a multidisciplinary team. (Individuals with Disabilities Education Act of 1990, p. 1107; Individuals with Disabilities Amendment Act of 1997, p. 19).

Scarborough (1990) added to this knowledge when he found that reading disabilities could be diagnosed successfully as early as 2 and a half years of age. Using a language-based assessment with preschoolers, including developmental language tasks and a speech assessment, Scarborough (1990) longitudinally charted reading achievement progress along with IQ through the fourth grade year of these students. Language difficulties and/or delays in the preschoolers were helpful in predicting significant delays and/or reading disabilities in the same children later in elementary school. Evidence points to the fact that learning disabilities may not be solely school-based disorders.

School Age

The literature is full of articles debating the validity of the terminology, the correctness of the wording of IDEA as it regards learning disabilities, the

physiology of people with learning disabilities, and the educational perspective of learning disabilities (e.g. Durrant, 1994; Gerber, 1994; Bigler, 1992; Bateman, 1992). In 1992, Bateman, for example, examined the legal perspectives of defining LD by IDEA criteria. She also criticized the present assessment system in place for students with LD in many school districts: “one of the most visible of the major implementation failures has been the overidentification and misidentification of children with learning disabilities,” (Bateman, 1992, p. 29). She also articulated an issue that has come around for the second time — as first presented by Barsch (1968) — the concept of *learning disability* being a “safety net,” “catching and including children who have brain injury, children who have ‘plain vanilla learning disabilities,’ and all children with other categorical disabilities who present learning problems beyond those of other children with that disability,” (Bateman, 1992, p. 32). In other words, the category has included any learner who failed to benefit from an existing curriculum into which he/she had been placed. In fact, Abbott and Berninger (1994) advocate validating treatment approaches to LD, and then re-defining LD as a failure to respond to those established intervention programs. Nevertheless, the field, under IDEA, adopted a categorical discrepancy model for deciding eligibility for learning disabled services. This decision, in part based on financial considerations, was determined to be the most objective method in determining the presence of a learning disability (Silver & Hagin, 1990). However, the discrepancy is only one part of

the model.

In contrast to the concomitant occurrences listed in the NJCLD definition, the American Psychiatric Association depends more highly on an achievement model. Note also that this definition incorporates social skill deficits as well as a specific discrepancy. According to the DSM-IV:

learning disorders are diagnosed when the individual's achievement on individually administered standardized tests in reading, mathematics, or written expression is 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. Substantially below is usually defined as a discrepancy of more than 2 standard deviations between achievement and IQ. Demoralization, low self esteem, and deficits in social skills may be associated with learning disorders. Learning disorders may persist into adulthood.

There is evidence that developmental delays in language may occur in association with learning disorders (particularly reading disorders).

Estimates of the prevalence of learning disorders range from 2% to 10% depending on the nature of ascertainment and definitions applied.

Approximately 5% of students in public schools in the United States are identified as having learning disorders. (American Psychiatric Association,

1994, p. 47).

The debate continues as educators, psychologists, and researchers alike continually criticize the lack of consensus about the definition, and therefore, the basis of learning disabilities. The problem is the lack of consistently defining what a learning disability is. This, of course, is due to the complexity of the history of the issues, the differing views of the national organizations as to what should be included/excluded, the numbers of children who need extra help, and the amount of funding available to help. Definitions have arisen from neurological, psychological, and curricular perspectives. The terms *minimal brain dysfunction* and *brain damaged* have previously been applied to those now labeled learning disabled. Diagnostic tests and procedures, which are inherently an inclusionary/exclusionary component of *learning disability* in the school setting, are not necessarily valid or reliable (Kamphaus, Frick, & Lahey, 1991). Diagnosticians assess the variables they believe to be the most important and use those instruments with which they have been trained and feel the most comfortable (Lyon, Alexander, Yaffe, 1997). This leads to an increased number and type of tests used, many of which have questionable validity and reliability. The fact that there is no consensus concerning diagnostic procedures that should be used to specify the nature of a student's problems, or used for classifying a student as learning disabled, is emphasized by the varying state guidelines. These guidelines vary as to which of the five component parts of IDEA's definition should be used:

task failure, achievement-potential discrepancy, etiological factors, exclusionary factors, and dysfunctions in one or more of the psychological processes (Chalfant, 1989). As Frankenberger and Harper (1987) pointed out, and Silver and Hagan (1990) agreed with, states use different criteria to determine eligibility and/or identification of those with learning disabilities. For example, some districts in Southeast Michigan use a standard score comparison model formula, where a 20 or more point discrepancy between the regressed Verbal IQ and the Achievement standard scores must exist to determine learning disability eligibility (Macomb Intermediate School District, 1995). Other districts use “grade-equivalent discrepancies or strict discrepancy formulas,” (Silver & Hagin, 1990, p. 17). Almost 5% of school-aged children are diagnosed with learning disabilities, but this rate varies greatly by state. Depending on the criteria used in assessments, classification rates ranged from 3.5% of students in Illinois, to 8% of students in Iowa, to 25% of students in Texas (Silver & Hagin, 1987).

Kamphaus, Frick, and Lahey (1991) found that the diagnosis of learning disability was dependent on the method used for making the LD diagnosis. In studying the effects of two approaches to the assessment of learning disabilities in a sample of 177 boys referred for behavior problems, Kamphaus et al. (1991) found that an achievement expectancy model and a regression method produced significantly different results. The achievement expectancy method, which utilized an expected achievement score based on a given IQ score, was likely to

identify children with above-average IQs as learning disabled; a second group was used as a control; and a regression approach, which used regressed IQ scores in comparison to regressed achievement standard scores, was used in the third group — it identified learning disabilities more consistently across the disability range than the other groups, (Kamphaus et al., 1991). The implication here is that a learning disability label does not solely depend on presenting symptomology, but rather on the method used to assess the symptomology.

Adult

It is estimated that about 20% of the adult population of the United States has difficulty with simple reading tasks (Stedman & Kaestle, 1987). However, to claim that these adults are *learning disabled* is to ask for an *adult* definition of what a *learning disability* is. When a person reaches adulthood, even the poor definitions we *have* regarding learning disabilities do not apply. Current definitions are limited to the school setting -- perhaps this is because definitions are *needed* chiefly in the schools. None of the definitions that have been discussed focus on the adult manifestations of learning disabilities. However, when *adaptive behavior* and *measured achievement deficits in a specific skill* are used to replace *school based achievement* measures, then task failure, achievement-potential discrepancy, etiological factors, exclusionary factors, and dysfunctions in one or more of the psychological processes makes sense, even from an adult perspective. The Rehabilitative Services Administration adopted a formal definition in 1989,

which avoids reference to academic difficulties, and “includes problems with social competence, employment difficulties, and social immaturity,” (Reiff, Gerber, & Ginsberg, 1993, p. 120) as potential learning disabilities. Otherwise, components, such as excluding difficulties due to environmental and/or visual, hearing, or motor impairments, are the same as the curriculum-based definitions. It is probable that these slightly different criteria for adults do not denote a different disorder, but a developmentally-changing disorder, that varies as it progresses, especially when the disability is severe or when inadequate accommodations are made. Evidence is plentiful (see Olswang, Rodriguez, & Timler, 1998; Kamhi & Catts, 1989; Gregg, Hoy, & Gay, 1996) that learning disabilities do not begin or end in school. According to the National Joint Committee on Learning Disabilities, “learning disabilities are intrinsic to the individual, presumed to be due to central nervous system (CNS) dysfunction, and may occur across the lifespan,” (NJCLD, 1988, p. 4).

As Gerber (1990) also showed, adults who had been diagnosed with learning disabilities in childhood and achieved successful levels of career employment, continued to have significant problems in their specific areas of disability. Olsen, Wise, Conners, Rack, and Fulker (1989) pointed out that both the environment and genetics are influential in determining who will develop specific reading and language disabilities — the disorder seems to be heritable as well as remediable.

In 1993, Reiff et al. interviewed a nonrepresentative group of 71 adults with learning disabilities, which had been diagnosed in school, and asked them for their own definitions of *learning disability*. These people were not “slow” by any means — they earned anywhere from \$10,000 to over \$100,000 per year (the mean was \$65,000 per year). All had attained a high school diploma, and 29 of the 71 had received doctorate degrees. Their personal definitions reflected areas of processing difficulties, functional limitations, underachievement determination, and individual differences.

Although this may not be a representative sample of adults with learning disabilities -- “people with disabilities have an employment rate that is among the lowest of any group of Americans under 65-years-old,” (Kaiser & Abell, 1997) -- they do reflect the eclectic mix of learning disabilities: “The disability doesn’t affect your intelligence but affects your ability to perform sometimes as intelligently as you could; it can affect a variety of areas, almost anything,” (Reiff et al., 1993, p. 120). Many of the interviews also indicated that learning how to deal with learning disabilities provided the foundation for success. In a sense, they may have realized their full potential; they simply traveled a different route to get there.

Conclusions

The definition of disorders of learning in children is important. It determines the number of children who need special education resources; it guides

the decisions to provide services to every individual child; and it is essential for selection of samples for research. Following the historic trend, however, there is little consensus among professionals in the field, either in terms of definition or in methods of identification. Most school districts, though, do use a variation of the ability - achievement discrepancy formula to determine learning disability identification.

Historically, definitions have arisen from neurological, processing, and curriculum based perspectives. In the past few years, the field of learning disabilities has begun to direct more of its attention and identification to preschoolers and adults with learning disabilities. This interest was prompted by the increasing number of students with identified learning disabilities, and those who are exiting mandated-age programs. Current research and writing in the field of learning disabilities have not yet broken from their mind-sets of studying learning disabilities during the school-age years. This is problematic in that learning disabilities do not appear nor do they disappear when an individual enters or leaves school. As the field first recognizes that learning disabilities do not appear nor exit at the door of the school, and then moves forward in its thinking about preschoolers and adults with learning disabilities, the research and continued work on definitions that is generated must continue to consider an integrated lifespan approach.

What we learn must be meaningful and specific to the populations we

serve. This means that a single definition of learning disability may not be appropriate nor may it ever be realized, as measurement sources and requirements, legal definitions and issues related to schooling, state versus national requirements, and lifespan specificity make this nearly impossible. However, if we look at a learning disability from this lifespan approach — along a continuum as to type of disability as well as how/when it affects the student's life — we may have more success, as professionals, in helping to provide programming and guidance to those who depend on us for help.

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