
A TIME TO DEFINE: MAKING THE SPECIFIC LEARNING DISABILITY DEFINITION PRESCRIBE SPECIFIC LEARNING DISABILITY

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Abstract. Unlike other special education categories defined in U.S. law (Individuals with Disabilities Education Act), the definition of specific learning disability (SLD) has not changed since first proposed in 1968. Thus, although the operational definition of SLD has responded to new knowledge and understanding about the construct, the formal definition has remained static for 40 years, creating a schism between theory and practice. Using concepts gleaned from the scientific study of formal and operational definitions as well as the history of another special education category (i.e., mental retardation), in this article we demonstrate why change in the SLD definition is necessary. Finally, we propose a change in the SLD definition in federal regulations to redress the disconnect between theory and practice and restore integrity to the SLD field.

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“When I use a word,” Humpty Dumpty said in a rather scornful tone, “it means just what I choose it to mean – neither more nor less.”

– Lewis Carroll, *Through the Looking-Glass*

The field of specific learning disability (SLD) is engaged in discussion about the best means of identifying SLD. The problem related to SLD identification is long-standing, and the 2004 Individuals with Disabilities Education Act (IDEA) regulations were aimed at enhancing identification by including a response-to-intervention (RTI) process. Nevertheless, although RTI is viewed as a means of “redefining” SLD (Vaughn & Fuchs, 2003), technically, SLD is not being redefined but rather re-operationalized.

For practice to proceed efficiently, “operational definitions” are required, but such definitions should translate the concepts described in the formal definitional statement into tangible actions (Hempel, 1961). As a scientific process, the formulation of operational definitions should be based on fundamental principles, but the SLD field has not rigorously followed the rules, unintentionally leading to the development of spurious operational definitions.

The purpose of this paper is to demonstrate the fragility of current SLD operational definitions and, more important, the insubstantial nature of the current formal definition of SLD.

Formal Definitions

Definitions may be defined in a variety of ways (see

Robinson, 1954). For example, Spinoza (1949) suggested that "the true idea [real definition] must agree with that of which it is the idea (*cum suo ideato*)" (p. 42). Accordingly, the focus is on the thing rather than on words, which means that an SLD definition would be about the *thing* SLD, not about the word (concept) SLD. The goal is to capture *essence* (see Aristotle, circa 350 B.C.E./1989), but such real definitions cannot be attained through the use of words, making them of only theoretical interest.

Since it is customary to use words to define something, most SLD definitions belong to the class termed nominal definition, whose goal is to create a word-thing definition, which can be refined into word (stable linguistic sign) – thing (referent of such a sign). One form of nominal definition, termed lexical, is exemplified by dictionary definitions representing the customary meaning of a word at a particular time. However, such definitions are often too general and not rich in meaning. For example, the lexical definition of disability reads "the condition of being disabled" (Merriam-Webster, 2008). This is not very helpful for understanding disability because the definition does not create an unambiguous concept (see Kant, 1781/1998). Definitions remain ambiguous because of the language property termed the "arbitrariness of the sign," which is best represented in the quote opening this paper (*Through the Looking Glass*, Lewis Carroll, 1872/1984b). The statement by Humpty-Dumpty illustrates the impossibility of a completely nonarbitrary definition.

The arbitrary nature of any formal definition places it in the class of definition termed stipulative, which embodies the explicit and deliberate but arbitrary adoption of a meaning relation among words (Robinson, 1954). Thus, stipulative definitions explain the nature of a phenomenon, not in the sense of what it really is, but in the way it is conceived to be in different social, political, and logical contexts. Consequently, in a stipulative definition, words mean whatever a particular group (or individual) chooses them to mean based upon their own linguistic, cognitive, and philosophical premises (Rantala, 1977). The primary difficulty lies in the absence of a rational means for deciding which stipulative definition is best; hence, stipulative definitions possess only heuristic value with no implications about validity (Robinson, 1954).

Although the IDEA definition of SLD has attained consensus status (i.e., it is the most widely used), primarily because of the significant influence of the federal government (i.e., legislation and funding), it suffers from the fundamental difficulty associated with all stipulative definitions: They need not be true but only useful. Because its status gives the IDEA definition of SLD heuristic value, the unwarranted assumption that the

definition is veritable remains; it may be right or wrong. As pointed out by Cruickshank (1976) some 30 years ago, the consequences are found in the development of a potentially false understanding of SLD because the definition "is far from satisfactory. It served an important purpose in 1963. ... It was a term agreed upon then by essentially all the leaders in the field. ... It is positive in its connotation. ... In use, however, it has permitted misinterpretations" (pp. 112-113).

SLD Definition

The IDEA (2004) definition of SLD – because of its entrenchment in federal legislation – represents the most influential stipulative definition of SLD. As defined in IDEA (2004), the SLD definition reads as follows:

In General – 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 an imperfect ability to listen, think, speak, write, spell, or do mathematical calculations.

Disorders Included – Such term includes such conditions as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia.

Disorders Not Included – Such term does not include a learning problem that is primarily the result of visual, hearing, or motor disabilities, of mental retardation, of emotional disturbance, or of environmental, cultural, or economic disadvantage. (P.L. 108-466, Sec. 602[30])

The definition creates a concept with three major points of agreement. First, a description of academic difficulties associated with fundamental cognitive deficiencies (i.e., understanding, using), which, in turn, are related to deficits in basic psychological processes. Second, a listing of conditions analogous to SLD that were presumably added to enhance the description found in the "In General" statement. Third, a statement circumscribing SLD by excluding elements that may be associated with learning problems but are not primary to the SLD condition.

Although representing the definition of SLD, the IDEA definition illustrates major shortcomings of stipulative definitions. First, the "In General" clause is a vague and cryptic description; the "specific" adjective associated with learning disability is nebulous, leaving only an obscure expression about general learning problems. Second, the two other elements introduce even less precision. Although SLD may be analogous to the conditions listed in "Disorders Included," there is no explanation about why this may be the case.

Additionally, many of the disorders included are controversial and poorly defined themselves. Consequently, a child experiencing academic problems may be described as being like a child with SLD, but without further verification, it becomes fact that the child is SLD; in other words, the simile becomes the metaphor (Smith & Polloway, 1979). The "Disorders Not Included" statement excludes certain possibilities but fails to indicate how any remaining possibility is properly termed SLD. It seems unfortunate that the only "specific" part of the definition is found in the certainty about what SLD is *not*.

Although indeterminate about the SLD construct, the IDEA definition has been the primary description since first offered in 1968 by the National Advisory Committee on Handicapped Children (NACHC, 1968) and initially incorporated in Public Law 94-142 (The Education for All Handicapped Children Act [1975]), now IDEA. The almost universal acceptance of the federal definition has deflected attention away from attempts to enhance the unmodified formal definition. Consequently, there has been little effort to enhance the "truth value" of the SLD definition.

Operational Definitions

With no change in the formal definition, attention was directed at improving practice through the use of operational definitions that provide a process for the identification and classification of concepts that have been formally defined. According to the physicist Percy Bridgman (1927), "in general, we mean by a concept nothing more than a set of operations; *the concept is synonymous with the corresponding set of operations*" (p. 5). For any concept, a set of operations defines its scientific understanding and use and "to know these operations is to understand the concept as fully as science requires" (Kaplan, 1964, p. 40).

In reality, operational definitions represent only temporary assumptions about a concept, which is subject to change: "No concept can be defined once and for all: every concept requires constant purging to keep it operationally healthy" (Stevens, 1935, p. 527). However, the change introduces imprecision because of difficulties demonstrating how, for example, two different operations define the same concept (Boring, 1945). Thus, it cannot be assumed that the identical concept is assessed under different circumstances (i.e., when different operations are used) (Benjamin, 1955).

Although usually based on an empirical indicator (e.g., test score), operational definitions are judged by criteria other than statistical notions of reliability and validity. Thus, operational definitions are judged by *significance* (i.e., is it an authoritative marker of the concept?) and *meaningfulness* (i.e., is it a rational and logical

marker of the concept?). Since there are no rules for converting concepts to operational definitions, any concept "operationally defined" may appear to be valid (i.e., true) but be devoid of significance and meaningfulness (Bergmann, 1961).

Unlike notions in the physical sciences, SLD concepts are generally ill defined in a scientific sense (see Hempel, 1952). Consequently, the loose theoretical structure possessed by SLD concepts means they are better viewed as nonvalidated "ideas" and not "true" concepts (see Carnap, 1956). To provide a tighter conceptual structure, SLD concepts usually include *open terms* that create "symbolic operations," which trace the connections among theoretical ideas. Kaplan (1964) warned, however, that the "criteria for the scientific usefulness or even admissibility of such [symbolic] operations are virtually impossible to formulate" (p. 42).

In reality, operational definitions provide a "functional analysis" because "operational definitions are not analytic truths, but subject to empirical confirmation. This suggests that they are not 'definitions' at all" (Leahey, 1980, p. 138). Kerlinger (1973) noted that "An operational definition is a sort of manual of instruction. ... It says, in effect, 'do such-and-such and in so-and-so a manner'" (p. 31). As such, creating operational definitions cannot substitute for the continuing theoretical development of a conceptual structure. Although having a role "in piloting nascent thought about a given phenomenon, [operational definitions] cannot ultimately replace the fruits of hard, rigorous thought" (Green, 1992, p. 315).

The fragility of using operational definitions unfounded in theory may be demonstrated by the hypothetical Index of Specific Learning Disability (ISLD) defined as:

$$\text{ISLD} = \frac{[(\text{Red Blood Cell Count} + \text{Mental Age})/\text{Weight (in oz)}] + [\text{Grade Level Achievement}/\text{Auditory Acuity (in Db)}]}{[\text{Head Circumference} + \text{Words Read (per minute)}] - 2.5}$$

Clearly, it would be possible to ascertain a child's ISLD. Equally clearly, the ISLD lacks significance and meaningfulness. What expressive and consequential markers of SLD are included? Although some elements seem appropriate, others do not belong. We know a good deal about SLD, and the ISLD does not seem to "fit" with existing knowledge about SLD. Although the ISLD possesses a certain a priori plausibility, even a cursory analysis shows that it lacks a cohesive theoretical foundation, quickly undermining plausibility.

Operational Definitions of SLD

Since 1977, the primary operational definition of SLD has been found in the "discrepancy criterion." First introduced in Bateman's (1965) definition, dis-

crepancy was formalized in federal regulations as a "severe discrepancy" between ability and achievement:

(1) The child does not achieve commensurate with his or her age and ability when provided with appropriate educational experiences, and (2) the child has a severe discrepancy between achievement and intellectual ability in one or more areas relating to communication skills and mathematics abilities. (U.S. Office of Education [USOE], 1977, p. 65083)

The definition of discrepancy specifies a synonymous meaning relation: "... = *df* "...," which reads: (some term) is definitionally equivalent to (some other term[s]) (see Robinson, 1954). In the present case, "discrepancy" = *df* ("difference between expected and actual achievement") and is only definitionally equivalent if the terms are mutually replaceable without altering the truth value. The problem is the variability associated with discrepancy methods that renders them definitionally nonequivalent. For example, Kavale (2002) described four approaches to discrepancy: grade-level deviation, expectancy formula, standard-score difference, and regression formula. Although each method defines the same concept ("discrepancy"), the differences among the procedures used to calculate discrepancy renders them nonequivalent.

These problems are compounded when different ability (i.e., IQ) and achievement measures are used to "define" expected and actual achievement since they also serve to reduce definitional equivalence and change meaning. Thus, unless an operational definition is applied in exactly the same way in every instance, precision, as well as the ability to generalize outcomes, is reduced. As suggested by Kaplan (1964), "Constancy of meaning would depend on empirical constancies which cannot always be anticipated" (p. 41).

Besides definitional equivalence, operational definitions also require conceptual equivalence. Proffering discrepancy as the operational definition of SLD suggests that discrepancy is definitionally equivalent to SLD (i.e., "discrepancy" = *df* "SLD"). Clearly, this is not true; SLD is a far more complicated construct that is not easily defined by a single feature (see Kavale & Nye, 1985-1986).

Hempel (1952) described concept formation as a process wherein a phenomenon is analyzed into elements that are then grouped together and ultimately assigned to a class. For example, the SLD concept puts into a single class a particular set of children and is itself analyzed into such elements as school failure, achievement status, neuropsychological deficits, neurological integrity, linguistic standing, and the like. The goal is to create a "natural" class where "a significant concept so

groups or divides its subject-matter that it can enter into many and important true propositions about the subject-matter other than those which state the classification itself" (Kaplan, 1964, p. 50).

By itself, discrepancy is not a natural class of SLD but part of a larger array describing SLD. An operational definition that equates SLD with discrepancy is thus incomplete and ignores suggestions for more comprehensive operational definitions (e.g., Flanagan, Ortiz, Alfonso, & Mascolo, 2002; Kavale & Forness, 2000; Shaw, Cullen, McGuire, & Brinkerhoff, 1995). Because discrepancy has been the operational definition of SLD for so long, it has created the false impression that the two concepts are equivalent. When the possible variations in the application of discrepancy are considered, it is easy to see how the concept of SLD evolved differently over time, serving only to exacerbate the heterogeneity of the SLD population.

The Need for a New Formal Definition

The history of SLD has been well documented and shows how the category fulfilled an important need in special education (see Mercer & Hallahan, 2002; Wiederholt, 1974). However, from the beginning, there was recognition of the need for a definition that better reflected the nature of SLD and was accepted for reasons other than the influence of the federal government. Thus, more than 35 years ago, McCarthy (1971) suggested that, "The most important decision you will make is that of definition – because your definition will dictate for you the terminology to be used in your program, the prevalence figure, your selection criteria, and the appropriate remedial procedures" (p. 14). Yet, the "problem of definition" continues as it has since 1969: "I believe it is safe to say that in no other area of special education has so much effort and controversy gone into the refinement of a definition" (Kass, 1969, p. 241).

Ames (1977) suggested that the "problem of definition" developed because "the term 'learning disabilities' caught on and swept the country – long before we had reached a really satisfactory definition of what it means" (p. 328). Failure to resolve the SLD definition controversy suggests that the definition has been "good enough" for practice, but the price paid is found in the failure to articulate a comprehensive understanding of the SLD construct (Kavale & Forness, 1995).

The SLD condition was originally conceptualized as a circumscribed entity affecting a small portion of the school population experiencing academic difficulties (see Kavale & Forness, 1985). Yet, because of incomplete understanding, SLD soon transcended its boundaries and became a catch-all classification for a general class of learning problems. "Indeed all exceptional children have learning problems. But these children are not

children with a *specific learning disability*, that is, a learning disability in one area when all other functions are intact" (Kirk, 1976, p. 258). The name itself, SLD, soon morphed into the more generic *learning disabilities*, moving the construct away from being a particular condition and leading to the inclusion of large numbers of students who may or may not be SLD.

It appears that the more definitions of SLD change (at least, theoretically), the more they stay the same. Why? Although changes in the definition have been proposed, they have never influenced the federal definition and thus do not have the force of the law behind them. For example, the National Joint Committee on Learning Disabilities (NJCLD), a multidisciplinary group of organizations concerned about SLD, raised five specific points of contention with the federal definition. They also issued a new SLD definition in 1981, which was well received but exerted little influence. Similarly, the Interagency Committee on Learning Disabilities (ICLD), comprised of federal agencies, issued a definition in 1987 that essentially endorsed the NJCLD definition. In response, the NJCLD modified its earlier definition, but again it did not impact the federal definition.

If proposed definitional modifications are not incorporated into the federal definition, efforts to improve the definition are pointless. The failure to modify the federal definition cannot be justified and means that SLD will continue to lack "two critical scientific elements: understanding – a clear and unobscured sense of SLD – and explanation – a rational exposition of the reasons why a particular student is SLD" (Kavale & Forness, 2000, p. 240).

When SLD was a new category (circa 1970), the original federal definition (i.e., NACHC) worked well in establishing the legitimacy of SLD, but deficiencies were noted early on. The NJCLD was formed to remedy the perceived deficiencies, yet their definition remains apart because of the preeminence of the federal definition. Why engage in efforts to improve the SLD definition if they are continuously ignored?

Amending the SLD Definition

Much like the Founding Fathers provided a means and a process for the U.S. Constitution to "change with the times" through the process of amendments, the legal definition of SLD should be amended as the field gains greater knowledge about its basic nature. The amendment process has served to strengthen the Constitution and reflect certain realities. Special education should take a page from the Founding Fathers' playbook and engage in amending the SLD definition to reflect the expansive SLD research base. Surely, 40 years of research has produced valuable insight for enhancing

the SLD definition. When the NACHC (1968) definition was incorporated into Public Law 94-142 (1975) essentially unchanged, the primary reason was the conflicting nature of SLD research at the time: "No one really knows what a learning disability is" (*Congressional Record*, 1975, H 7755).

After some 30 years, such a statement can no longer be valid. With no substantive change in over 30 years, it seems safe to say that the SLD definition has retreated into obscurity. By failing to incorporate theoretical advances, the present SLD definition has made the category over-inclusive because of "the well-intentioned tendency to accept under the LD rubric all persons who have any potential claim of possessing this disabling condition" (Senf, 1977, p. 538).

Definitional Perspective

The enduring debate about definition ignores the fact that professionals have long viewed SLD as a viable classification (see Tucker, Stevens, & Ysseldyke, 1983) and possess implicit notions about what SLD represents (Swanson & Christie, 1994). The SLD definition, however, has become articulated in many different operational definitions, creating a situation where little consensus exists about the nature of the condition. Consequently, SLD has lost its original meaning, creating a scenario where "the definition of [SLD] is like the definition of pornography: 'No one seems to be able to agree on a definition, but everyone knows it when they see it'" (McGrady, 1980, p. 510).

Returning to *Through the Looking Glass* (Carroll, 1872/1984b), after Humpty-Dumpty issued his statement about meaning, Alice replied, "The question is, whether you can make words mean so many different things" (p. 124) to which, in turn, Humpty-Dumpty rejoined, "The question is, which is to be the master – that's all" (p. 124). Thus, Humpty-Dumpty is attempting to overcome ambiguity. Because meaning is shaped by its social context, the goal is to create a definition whose descriptive statement organizes knowledge into a logical framework for ensuring common meaning in future discourse. But such a scenario is predicated on definitions being amenable to change. Hence, the failure to modify the federal SLD definition must be viewed as illogical and unconscionable.

When asked to solve several riddles, Alice (see *Alice's Adventures in Wonderland*, Carroll, 1866/1984a, p. 98) is admonished,

"Then you should say what you mean," the March Hare went on.

"I do," Alice hastily replied; "at least – at least I mean what I say – that's the same thing you know."

"Not the same thing a bit!" said the Hatter.

With no change in the formal definition, SLD continues to become not the same thing (a bit). Willis and Dumont (2006) asked, "Has Congress provided us with a better definition, leading to more appropriate diagnosis of SLD, or has the definition just gotten worse?" (p. 907). The proper response appears to be the latter, because no change means even further disconnect from the original SLD construct. The lack of attention directed at the SLD definition must cease if the field is to recapture its status as a reliable entity in special education rather than a battleground for new initiatives (i.e., RTI) that have only minimal association with SLD (Kavale, Kauffman, Bachmeier, & LeFever, 2008).

The Example of the Definition of Mental Retardation

The field of mental retardation (MR) demonstrates how a definition can change in response to accumulat-

ing research. For the greater part of the 20th century, the most widely used definitions were provided by the American Association on Intellectual and Developmental Disabilities (AAIDD) (2007) (formerly the American Association on Mental Retardation [AAMR]). Beginning in 1921, the predecessors of AAIDD began to publish MR definitions that were predicated on criteria that Doll (1941) considered essential for describing MR: (a) social incompetence, (b) mental subnormality, (c) developmental arrest, (d) obtains at maturity, (e) of constitutional origin, and (f) essentially incurable.

The most sweeping changes, beginning in 1959, are shown in Table 1.

Although MR definitions changed, two key elements were retained: (a) low general intellectual functioning and (b) problems in adaptive behavior. For example, based on population IQ data (e.g., Wechsler, 1958), the

Table 1
Changes in the Definition of Mental Retardation Since 1959

Author/Date	Definition
Heber (1959):	Mental retardation refers to subaverage general intellectual functioning that originates during the developmental period and is associated with impairment in one or more of the following: (a) maturation, (b) learning, and (c) social adjustment.
Heber (1961):	Mental retardation refers to subaverage general intellectual functioning that originates during the developmental period and is associated with impairment in adaptive behavior.
Grossman (1973/1977):	Mental retardation refers to significantly subaverage intellectual functions existing concurrently with defects in adaptive behavior and manifested during the developmental period.
Grossman (1983):	Mental retardation refers to significantly subaverage general intellectual functioning resulting in, or associated with, concurrent impairments in adaptive behavior and manifested during the developmental period.
Luckasson et al. (1992):	Mental retardation refers to substantial limitations in present functioning. It is characterized by significantly subaverage intellectual functioning, existing concurrently with related limitations in two or more of the following applicable adapting skills areas: communication, self-care, home living, social skills, community use, self-direction, health and safety, functional academics, leisure, and work. Mental retardation manifests before age 18.
Luckasson et al. (2002):	Mental retardation is a disability characterized by significant limitations in both intellectual functioning and adaptive behavior as expressed in conceptual, social, and practical adaptive skills. This disability originates before age 18.

upper IQ level for MR had historically been set at about 70, but the 1959 and 1961 (Heber) definitions made MR a more inclusive concept by setting the IQ ceiling at about 85. The more liberal IQ criterion was challenged, for example, because it created the possibility of significantly increasing the MR population (i.e., four times the number with a below-70 IQ criterion) (Garfield & Wittson, 1960). Consequently, the new 1973 and 1977 (Grossman) definitions became more exclusive with an IQ cut-off set at 70 (i.e., 2 standard deviations [*SD*] below the mean) effectively removing the "borderline" group (i.e., IQ of about 70 to 85) from MR consideration (Claussen, 1972b). In 1977, Grossman introduced the possibility of using clinical judgment in MR diagnosis. In essence, the 2 *SD* below the mean criterion was no longer viewed as a rigid marker because "impairments in intellectual functioning must co-exist with deficits in adaptive behavior" (Grossman, 1977, p. 12).

The 1961 (Heber) definition was the first to formally incorporate the concept of "adaptive behavior," which refers to an individual's ability to deal effectively with social demands and expectations. Because of the significant measurement problems associated with the adaptive behavior criterion, however, Clausen (1967, 1972a) argued for a strictly psychometric definition and the elimination of an adaptive behavior criterion because it was not as reliable and valid as intelligence (IQ). Despite the criticism, Grossman (1973) maintained that limitations in the measurement of adaptive behavior did not nullify the concept or its inclusion in the definition of MR.

The 1992 (Luckasson et al.) definition represented perhaps the most radical departure in the way MR had been defined. The definition stressed the interaction among three major dimensions: an individual's capabilities (intelligence and adaptive behavior), the environment in which the individual functions (home, school/work, community), and the need for varying levels of support, which eliminated levels of MR based on IQ (mild, moderate, severe, and profound). The revised system was based on needed levels of support (intermittent, limited, extensive, pervasive) as a function of the different adaptive skill areas. The intent was to replace an emphasis on intellectual deficits with a system that explained functional limitations in terms of the degree of support required to achieve life growth and development.

The "needed levels of support" concept moved the definition from a foundation based on science to one based on ideas about service (Jacobson & Mulick, 1992). Concerns about the definition were wide ranging (e.g., Borthwick-Duffy, 1994; Gresham, MacMillan, & Siperstein, 1995; MacMillan, Gresham, & Siperstein, 1993), leading Greenspan (1997) to suggest that the

problems with the definition resulted from a failure to (a) retain a focus on the science of MR, (b) capitalize on advances in classification science, and (c) prevent political influence from becoming too overt.

The general sentiment was that such a radical fix was not necessary and "that the AAMR manual should be declared an honorable mistake and given a decent burial" (Greenspan, 1997, p. 179). Nevertheless, AAMR admitted no mistakes and published the 10th edition of its manual in 2002, which essentially endorsed the 1992 definition (see Luckasson et al., 2002). The debate about MR definition has not abated, however, and "one can only hope that the creative process which has been unleashed by the problems with the AAMR definition will produce something worthwhile" (Greenspan, 1997, p. 179).

Defining SLD

It is useful to contrast the continuing action associated with the MR definition with the inaction surrounding the SLD definition; it is clearly a case of something versus nothing. Because of its type (i.e., stipulative), a definition of MR or SLD is going to be "accepted," indicating little about its adequacy in capturing the nature of the condition. Which definition (SLD or MR) is more likely to be an adequate description? There is little doubt that, with 90 years worth of effort behind it, the MR definition provides a better representation.

It is time for the SLD definition to become a better representation by reflecting a "richer" description of SLD. We believe the "original" definition was not "wrong" but limited in its depiction of what SLD "looks like." Thus, the federal definition needs to be "cleaned up" and, as suggested by Hammill (1990), it is time to cease "writing or talking about definitions instead of presenting and discussing a definition that [the SLD field] believe can be supported" (p. 83). In heeding Samuel Johnson's dictum, "Nothing will ever be attempted if all possible objections must be first overcome" (http://quotes.liberty-tree.ca/quotes_by/dr.+samuel+johnson), we offer a definition of SLD as follows:

Specific learning disability refers to heterogeneous clusters of disorders that significantly impede the normal progress of academic achievement in 2%-3% of the school population. The lack of progress is exhibited in school performance that remains below expectation for chronological and mental ages, even when provided with high-quality instruction. The primary manifestation of the failure to progress is significant underachievement in a basic skill area (i.e., reading, math, writing) that is not associated with insufficient educational, interpersonal, cultural/familial, and/or sociolin-

guistic experiences. The primary severe ability-achievement discrepancy is coincident with deficits in linguistic competence (receptive and/or expressive), cognitive functioning (e.g., problem solving, thinking abilities, maturation), neuropsychological processes (e.g., perception, attention, memory), or any combination of such contributing deficits that are presumed to originate from central nervous system dysfunction. The specific learning disability is a discrete condition differentiated from generalized learning failure by average or above (> 90) cognitive ability and a learning skill profile exhibiting significant scatter indicating areas of strength and weakness. The major specific learning disability may be accompanied by secondary learning difficulties that also may be considered when planning the more intensive, individualized special education instruction directed at the primary problem.

At the most fundamental level, the proposed definition was guided by questions posited by Luckasson and Reeve (2001) for defining MR: (a) Does this definition indicate the boundaries of the term? (b) Does this definition indicate the class of things to which it belongs? (c) Does this definition define what something is, not what it is not? and (d) Is this definition consistent with the desired theoretical framework? The proposed definition is not a radical departure from the existing one but provides more description about the nature of SLD.

Although it is outside the province of this article to fully explain the thinking behind it, we believe the proposed definition provides an example of a "richer" description of SLD that can be readily translated into an operational definition providing more confidence in the validity of a diagnosis of SLD.

CONCLUSION

"Everything that needs to be said has already been said. But since no one was listening, everything must be said again."

— André Gide

The SLD definition should reflect the best thinking about the SLD construct. Presently, this does not appear to be the case, since no change in definition has occurred in 40 years. Surely, four decades of inquiry have produced insights into the nature of SLD that should have engendered some modifications in the definition. In fact, efforts to enhance the SLD definition have been attempted but have been ignored, as evidenced by the same definition being authorized in federal law since 1975.

The status quo with respect to definition has created problems for the field, most noticeably related to the

fundamental activity of identifying SLD. With no change in definition, an attitude developed suggesting that "no one knows what an SLD is." Consequently, the focus shifted to the operational definitions of SLD necessary for the practical purpose of identification. Currently, operational definitions of SLD have either not worked well or have worked too well. The basic difficulty is found in the fact that the operational definitions of SLD have been, in essence, developed "out of thin air." When the nature of definition, both formal and operational, is understood, efforts in SLD fail to meet rigorous scientific and philosophical standards. Hence, there has been an enduring "SLD problem."

The major means to resolve the "SLD problem" is to redress the source: the formal definition. The field needs a definition that reflects its best understanding of the SLD construct. Our proposal is only an example, and we are certain better efforts can be achieved. The point is that a new definition must be forthcoming. The refusal to modify the formal SLD definition must cease, and efforts at engendering those modifications must no longer be viewed as simply academic exercises. If the SLD field is to regain its integrity, the SLD definition must change soon.

REFERENCES

- American Association on Intellectual Developmental Disabilities (AAIDD). (2007). *Frequently asked questions on intellectual disability and the AAIDD definition*. Retrieved June 3, 2008, from http://www.aamr.org/Policies/faq_intellectual_disability.shtml
- Ames, L. B. (1977). Learning disabilities: Time to check our roadmap? *Journal of Learning Disabilities, 10*, 328-330.
- Aristotle. (1989). *Topica* (E.S. Forster, Trans.). Cambridge, MA: Harvard University Press. (Original work published circa 350 B.C.E.)
- Bateman, B. (1965). An educator's view of a diagnostic approach to learning disorders. In J. Hellmuth (Ed.), *Learning Disorders* (Vol. 1, pp. 219-239). Seattle, WA: Special Child Populations.
- Benjamin, A. C. (1955). *Operationalism*. Springfield, IL: C.C. Thomas.
- Bergmann, G. (1961). Sense and nonsense in operation. In P. G. Frank (Ed.), *The validation of scientific theories* (pp. 45-56). New York: Collier.
- Bridgman, P. W. (1927). *The logic of modern physics*. New York: Macmillan.
- Boring, E. G. (1945). The use of operational definition in science. *Psychological Review, 52*, 243-245.
- Borthwick-Duffy, S. (1994). Review of 1992 AAMR manual. *American Journal of Mental Retardation, 98*, 541-544.
- Carroll, L. (1984a). *Alice's adventures in Wonderland*. New York: Alfred A. Knopf. (Original work published in 1866)
- Carroll, L. (1984b). *Through the looking glass, and what Alice found there*. New York: Alfred A. Knopf. (Original work published in 1872)
- Carnap, R. (1956). The methodological character of theoretical concepts. In H. Feigl & M. Scriven (Eds.), *Minnesota studies in the philosophy of science and the concepts of psychology and psychoanalysis* (Vol. 1, pp. 38-76). Minneapolis: University of Minnesota Press.

- Clausen, J. A. (1967). Mental deficiency: Development of a concept. *American Journal of Mental Deficiency, 71*, 727-745.
- Clausen, J. A. (1972a). Quo vadis, AAMD? *Journal of Special Education, 6*, 51-61.
- Clausen, J. A. (1972b). The continuing problem of defining mental deficiency. *Journal of Special Education, 6*, 97-106.
- Congressional Record (Daily Edition). (1975, July 29). H 7755.
- Cruikshank, W. M. (1976). William M. Cruikshank. In J. M. Kauffman & D. P. Hallahan (Eds.), *Teaching children with learning disabilities: Personal perspectives* (pp. 94-127). Columbus, OH: Charles E. Merrill.
- Flanagan, D. P., Ortiz, S. O., Alfonso, V. C., & Mascolo, J. T. (2002). *The achievement test desk reference (ATDR): Comprehensive assessment and learning disabilities*. Boston: Allyn & Bacon.
- Garfield, S. L., & Wittson, C. (1960). Some reactions to the revised "Manual on Terminology and Classification in Mental Retardation." *American Journal of Mental Deficiency, 64*, 951-953.
- Green, C. (1992). Of immortal mythological beasts: Operationism in psychology. *Theory and Psychology, 2*, 291-320.
- Greenspan, S. (1997). Dead manual walking? Why the 1992 AAMR definition needs redoing. *Education and Training in Mental Retardation and Developmental Disabilities, 32*, 179-190.
- Gresham, F. M., MacMillan, D. L., & Siperstein, G. N. (1995). Critical analysis of the 1992 AAMR definition: Implications for school psychology. *School Psychology Quarterly, 10*, 1-19.
- Grossman, H. J. (Ed.). (1973). *Manual on terminology and classification in mental retardation*. Washington, DC: American Association on Mental Deficiency.
- Grossman, H. J. (Ed.). (1977). *Manual on terminology and classification in mental retardation* (rev. ed.). Washington, DC: American Association on Mental Deficiency.
- Grossman, H. J. (Ed.). (1983). *Classification in mental retardation* (rev. ed.). Washington, DC: American Association on Mental Deficiency.
- Hammill, D. D. (1990). On defining learning disabilities: An emerging consensus. *Journal of Learning Disabilities, 23*, 74-84.
- Heber, R. F. (1959). A manual on terminology and classification in mental retardation. *American Journal of Mental Deficiency, 64* (Monograph supplement).
- Heber, R. F. (1961). Modification in the manual on terminology and classification in mental retardation. *American Journal of Mental Deficiency, 65*, 490-500.
- Hempel, C. G. (1952). *Fundamentals of concept formation in empirical science* (International encyclopedia of unified science, Vol. II, No. 7). Chicago: University of Chicago Press.
- Hempel, C. G. (1961). A logical appraisal of operationism. In P. G. Frank (Ed.), *The validation of scientific theories* (pp. 56-69). New York: Collier.
- Individuals with Disabilities Education Improvement Act of 2004 (IDEA), Pub.L.No.108-446, 118 Stat. 2647 (2004), [Amending 20 U.S.C. § 1400 et seq.].
- Interagency Committee on Learning Disabilities (ICLD). (1987). *Learning disabilities - A report to the U.S. Congress*. Washington, DC: U.S. Department of Health and Human Services.
- Jacobson, J. W., & Mulick, J. A. (1992). A new definition of mental retardation or a new definition of practice? *Psychology in Mental Retardation and Developmental Disabilities, 18*, 9-14.
- Johnson, S. (1709-1794). *Dr. Samuel Johnson quotes*. Retrieved December 16, 2008, from http://quotes.liberty-tree.ca/quotes_by/dr.+samuel+johnson
- Kant, I. (1998). *Critique of pure reason* (P. Guyer & A. Wood, Trans.). Cambridge, UK: Cambridge University Press. (Original work published 1781)
- Kaplan, A. (1964). *The conduct of inquiry: Methodology for behavioral science*. San Francisco: Chandler.
- Kass, C. E. (1969). Introduction to learning disabilities. *Seminars in Psychiatry, 1969, 1*, 240-244.
- Kavale, K. A. (2002). Discrepancy models in identification of learning disability. In R. Bradley, L. Danielson, & D. P. Hallahan (Eds.), *Identification of learning disabilities: Research to practice* (pp. 369-426). Mahwah, NJ: Erlbaum.
- Kavale, K. A., & Forness, S. R. (1985). *The science of learning disabilities*. San Diego, CA: College Hill Press.
- Kavale, K. A., & Forness, S. R. (1995). *The nature of learning disabilities: Critical elements of diagnosis and classification*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Kavale, K. A., & Forness, S. R. (2000). What definitions of learning disability say and don't say: A critical analysis. *Journal of Learning Disabilities, 33*, 239-256.
- Kavale, K. A., Kauffman, J. M., Bachmeier, R. J., & LeFever, G. B. (2008). Response-to-intervention: Separating the rhetoric of self-congratulation from the reality of specific learning disability identification. *Learning Disability Quarterly, 31*(3), 135-150.
- Kavale, K. A., & Nye, C. (1985-86). Parameters of learning disabilities in achievement, linguistic, neuropsychological, and social/behavioral domains. *Journal of Special Education, 19*, 443-458.
- Kerlinger, F. N. (1973). *Foundations of behavioral research* (2nd ed.). New York: Holt, Rinehart, & Winston.
- Kirk, S. A. (1976). Samuel A. Kirk. In J. M. Kauffman & D. P. Hallahan (Eds.), *Teaching children with learning disabilities: Personal perspectives* (pp. 238-269). Columbus, OH: Charles E. Merrill.
- Leahey, T. (1980). The myth of operationism. *The Journal of Mind & Behavior, 1*, 131-140.
- Luckasson, R., Borthwick-Duffy, S., Buntinx, W., Coulter, D., Craig, E., & Reeve, A. et al. (2002). *Mental retardation: Definition, classification, and systems of supports* (10th ed.). Washington, DC: American Association on Mental Retardation.
- Luckasson, R., Coulter, D., Polloway, E., Reiss, S., Schalock, R., Snell, M., Spitalnik, D., & Stark, J. (1992). *Mental retardation: Definition, classification, and systems of support* (9th ed.). Washington, DC: American Association on Mental Retardation.
- Luckasson, R., & Reeve, A. (2001). Naming, defining, and classifying in mental retardation. *Mental Retardation, 39*, 47-52.
- MacMillan, D. L., Gresham, F. M., & Siperstein, G. N. (1993). Conceptual and psychometric concerns over the 1992 AAMR definition of mental retardation. *American Journal of Mental Retardation, 98*, 325-335.
- McCarthy, J. M. (1971). Learning disabilities: Where have we been? Where are we going? In D. Hammill & N. Bartel (Eds.), *Educational perspectives in learning disabilities* (pp. 10-19). New York: Wiley.
- McGrady, H. J. (1980). Communication disorders and specific learning disabilities. In R. J. Van Hattum (Ed.), *Communication disorders: An introduction*. New York: Macmillan.
- Mercer, C., & Hallahan, D. (2002). Learning disabilities: Historical perspectives. In R. Bradley, L. Danielson, & D. P. Hallahan (Eds.), *Identification of learning disabilities: Research to practice* (pp. 1-65). Mahwah, NJ: Erlbaum.
- Merriam-Webster Online Dictionary. (2008). *Disability*. Retrieved November 5, 2008, from <http://www.merriam-webster.com/dictionary/disability>
- National Advisory Committee on Handicapped Children (NACHC). (1968). *First annual report, special education for handicapped children*. Washington, DC: Department of Health, Education, and Welfare.

-
- National Joint Committee on Learning Disabilities. (1988). [Letter to NJCLD Member Organizations] Washington DC: Author.
- Rantala, V. (1977). *Aspects of definability*. Amsterdam: North-Holland.
- Robinson, R. (1954). *Definition*. Oxford: Oxford University Press.
- Senf, G. M. (1977). A perspective on the definition of LD. *Journal of Learning Disabilities, 10*, 537-539.
- Shaw, S. F., Cullen, J. P., McGuire, J. M., & Brinkerhoff, L. C. (1995). Operationalizing a definition of learning disabilities. *Journal of Learning Disabilities, 28*, 586-697.
- Smith, J. D., & Polloway, E. A. (1979). Learning disabilities: Individual needs or categorical concerns? *Journal of Learning Disabilities, 12*, 525-528.
- Spinoza, B. (1949). *Ethics proceeded by on the improvement of understanding* (J. Gutman, Ed. and Trans.). New York: Hafner.
- Stevens, S. S. (1935). The operational definition of psychological concepts. *Psychological Review, 42*, 517-552.
- Swanson, H. L., & Christie, L. (1994). Implicit notions about learning disabilities: Some directions for definitions. *Learning Disabilities Research & Practice, 9*, 244-254.
- Tucker, J. S., Stevens, L. J., & Ysseldyke, J. E. (1983). Learning disabilities: The experts speak out. *Journal of Learning Disabilities, 16*, 6-14.
- U.S. Office of Education (USOE). (1977). Assistance to states for education of handicapped children: Procedures for evaluating specific learning disabilities. *Federal Register, 42*(250), 65082-65085.
- Vaughn, S., & Fuchs, L. S. (2003). Redefining learning disabilities as inadequate response to instruction: The promise and potential problems. *Learning Disabilities Research & Practice, 18*, 137-146.
- Wechsler, D. (1958). *The measurement and appraisal of adult intelligence*. Baltimore: Williams & Wilkins.
- Wiederholt, J. L. (1974). Historical perspectives on the education of the learning disabled. In L. Mann & D. Sabatino (Eds.), *The second review of special education* (pp. 103-152). Philadelphia: JSE Press.
- Willis, J. O., & Dumont, R. (2006). And never the twain shall meet: Can response to intervention and cognitive assessment be reconciled? *Psychology in the Schools, 43*, 901-908.
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