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# GOING FORWARD: HOW THE FIELD OF LEARNING DISABILITIES HAS AND WILL CONTRIBUTE TO EDUCATION

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*The field of learning disabilities has a past that it will never escape, but it has a future that, if it is predicated on the better parts of its past, will allow the field to continue to contribute to education, including education of students who do not have learning disabilities. Research generated under the auspices of learning disabilities has permitted the field to reject faulty instructional practices and identify critical elements for teaching effectively.*

## THE PAST

Although we can trace the historical roots of the field of learning disabilities to clinical studies conducted by physicians in the 19th century (Hallahan & Mercer, 2002), substantial growth in the field stems from an interaction between clinically oriented work by a handful of researchers (Samuel Kirk, William Cruickshank, and others) and advocacy efforts by parents (Eli Tash and others). The early researchers focused on the nature, assessment, and treatment of problems in learning that were not accounted for by sensory impairment, mental retardation, or emotional disturbance. At the same time, parents provided a sense of urgency by pressuring these researchers and others to establish programs for their children. Together, they forged an alliance that provided something for each party: Professionals gained allies for later political battles and parents gained access to the current developments from the researchers' labs.

### *A Long Lineage of Controversial Issues*

From the beginning, learning disabilities was dogged by an array of controversies (Hallahan & Cruickshank, 1973; Hallahan, Lloyd, Kauffman, Weiss, & Martinez, 2004). For example, there was debate about whether

learning disabilities are neurologically based. There was debate about whether perceptual training was an effective treatment for reading disabilities. And perhaps most important, there was debate about which students should receive special education because of learning disabilities, a debate that was predicated on the difficulty in discriminating among students who have varying degrees of problems with learning (e.g., Fletcher et al., 2002; Ysseldyke, Algozzine, Shinn, & McGue, 1982).

Growth in the prevalence of learning disabilities is a consequence of controversies in definition, a problem of the heterogeneous nature of the category of learning disabilities that was codified in early definitions. One result of these controversies has been discomfort among the public as well as policy makers about the very concept of learning disabilities (see *Learning Disability: The Imaginary Disease*; Finlan, 1994).

Controversies about public policy aspects of learning disabilities provide a major part of the context in which researchers have had to work when pursuing effective preventive and remedial practices. However, another contextual factor harkens back to the historical base for the area of study: Parents, teachers, and clinicians of children and youth with learning disabilities have never had the luxury of being able to wait for incontrovertible proof about the effectiveness of intervention methods. Teachers cannot stand at the schoolhouse curb and, when the school bus arrives in the morning, say, "Take those children with learning disabilities back home. We don't know exactly what to do with them yet." Instead, they have had to adopt the best practices that they know or can surmise and employ them as best they can.

Early on, the practices that teachers used often were founded more on intuition than evidence, leading to adoption of some mistaken concepts about assessment

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and teaching. For example, even though reversals do not differentiate between students with and without learning disabilities, in casual conversation one can hear teachers explain their own transposition of digits in phone numbers by saying, "It's just my learning disability coming out." Similarly, teaching based on modality learning styles, an idea with great intuitive appeal but little empirical support (Kavale & Forness, 1988; Snider, 1992), has persisted. Indeed, it now has morphed into recommendations for basing instruction on multiple intelligences (e.g., Hearne & Stone 1995), another idea for which there is little empirical support (Willingham, 2003).

### ***Gaining Empirical Footing***

The Learning Disabilities Institutes begun in the 1970s provided a contrast to earlier false starts. Based on their various theoretical rationales, researchers at the five institutes identified and pursued areas of importance in learning disabilities. As researchers at the Learning Disabilities Research Institute at the University of Virginia, we focused our efforts on problems in attention and academic learning (e.g., Hallahan, Lloyd, Kneedler, & Marshall, 1982; Lloyd, Saltzman, & Kauffman, 1981). The clinical tradition in learning disabilities was represented in our extensive use of single-subject research methods.

Regardless of research methods, the findings of the five institutes were remarkably consistent in what they revealed about interventions for learning disabilities: As a group they provided a foundation for using empirically validated practices, especially direct and explicit instruction, active student engagement, and teaching of cognitive strategies (Kneedler & Hallahan, 1983).

## **GOING FORWARD**

In the face of criticism and skepticism, the concept of learning disabilities has remained resilient for at least two reasons. First, results from neurological and genetic research have combined to support the reality of learning disabilities. Second, since the onset of the institutes, the field of learning disabilities has generated high-quality intervention research.

### ***Learning Disabilities Are Real***

In the early and mid-twentieth century, some pioneers in the field attributed learning disabilities to neurological abnormalities, and many theorized a genetic basis for the condition (Hallahan & Mercer, 2002). However, by the time learning disabilities was officially recognized as a special education category by the federal government, a biological basis for learning disabilities was being questioned. Nevertheless, advances in neuroimaging techniques and genetic research have provided accumulating evidence of a biological basis, indicating

that many individuals identified as having learning disabilities have genetic or other neural anomalies (Francks et al., 2002; Galaburda, 1993).

Such evidence has helped to make the argument that learning disabilities are real, not imaginary. In addition, some recent evidence points to the possibility that direct and systematic instruction affects brain activity (e.g., Shaywitz et al., 2004; Simos et al., 2002). That atypical brain function can be modified by instruction justifies continuing work in both the neurological and instructional aspects of learning disabilities.

### ***High-Quality Intervention Research***

Despite the false leads discussed previously, there is substantial reason to celebrate the contributions of learning disabilities intervention research, much of which was conducted or jump-started by the five learning disabilities research institutes. Learning disabilities researchers have constituted one of the strongest engines in efforts to base instruction on empirical evidence (Gerber, 1999).

Consider the decoding aspect of reading. During the 1970s and '80s when many educators embraced holistic, developmental approaches to reading instruction, researchers and other advocates associated with learning disabilities were among those who bucked the popular trend and campaigned vigorously for systematic teaching of phonological skills, sound-symbol relationships, and fluent decoding (e.g., Bateman, 1977; Liberman, 1970; Williams, 1980). Ultimately, their views have been vindicated by contemporary reading research (e.g., National Reading Panel, 2000; Snow, Burns, & Griffin, 1998; Vaughn & Linan-Thompson, 2004). Furthermore, as a simple perusal of the reference list of studies examined by the National Reading Panel (NRP) (2000) reveals, many studies that met the rigorous criteria for inclusion in the NRP's meta-analysis either appeared in a journal associated with learning disabilities or were written by people associated with learning disabilities.

Teaching students to approach tasks systematically represents a similar contribution from the field of learning disabilities to education in general. Bolstered by basic laboratory research revealing strategy deficits in students with learning disabilities (e.g., Hallahan, Kauffman, & Ball, 1973), researchers at the Kansas and Virginia institutes (e.g., Deshler, 1984; Lloyd & deBettencourt, 1982) studied the benefits of teaching students systems for performing common academic tasks. Research on students' use of strategies continues in many areas, including instruction in reading comprehension, written expression, and other areas (Harris & Graham, 1999; Wilder & Williams, 2001; Zimmerman & Schunk, 1998).

Finally, the substantial emphasis on systematically monitoring student progress in contemporary education also reflects a contribution from learning disabilities research. Progress monitoring began as an application of applied behavior analysis to learning disabilities, was expanded and refined into curriculum-based assessment or measurement by researchers at the Minnesota institute, and then became a required component of Reading First (e.g., Deno, 1985; Good & Kaminski, 2002; Howell, 1986; Lovitt, 1967).

## CONCLUSION

Although the concept of learning disabilities is no more clearly defined than it was in the 1960s, it has continued to stand as a guardian of special educational services for students with the most severe levels of low achievement (e.g., Kavale, Fuchs, & Scruggs, 1994). One of the results of the continuing emphasis on serving students with such substantial problems is that researchers in learning disabilities have built evidence about the most effective means of improving students' outcomes. As a consequence, learning disabilities has been one of the foremost sources for empirically founded practices – practices that have proven valuable for a wide spectrum of students, not just those with learning disabilities. Reasonably informed people interested in learning disabilities no longer recommend perceptual-motor training or instruction based on modality preferences. Instead they argue strongly for explicit, systematic instruction that focuses on teaching students strategies for completing academic tasks and that includes monitoring of progress so instruction can be adjusted to maximize progress. Although learning disabilities probably will continue to be awash in controversy, it will stand as a model for promoting the empirical basis for effective teaching.

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