

Implementation Fidelity of SLD Identification Procedures

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Three Certainties

- States will have broad discretion regarding LD identification
- State LD identification policies and practices will vary significantly
- Fidelity will be a challenge regardless of choices made, but choices will have to be made
- Values to guide choices? My answer?
Child Outcomes

LD Identification Issues

- ❑ NOT a new problem
- ❑ “One wonders if technically adequate solution to the problem of LD identification exists.”
- ❑ Author? Date?

Old Thinking:

Identifying The Disability Solved the Problem



Mission Accomplished Thinking

Overview of Presentation

- Current Evidence on SLD Identification Fidelity
- SLD State Policies and Practices
- Principles in Fidelity of Implementation
- SLD Identification Practices and Fidelity of Implementation Practices
- SEA Policies and Procedures to Improve Fidelity of Implementation

What is Fidelity (Treatment Integrity)

- Degree to which something is implemented as designed, intended, planned: Examples,
 - SLD classification criteria, note options
 - Screening three times per year
 - Delivery of more intense instruction for students not on course to reach benchmarks
 - Progress monitoring with formative evaluation
- All involve multiple components
- Can they be implemented with good fidelity, and How

Factors Related to Integrity

- Complexity of treatments
- Time required to implement treatment
- Materials and resources required for the treatment
- Perceived and actual effectiveness of treatment: **Credibility**
- Number of treatment agents
- Expertise of treatment agents
- Motivation of treatment agents

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Fidelity of Current SLD Identification

- McLeskey & Waldron, IN, 36% of newly identified SLD students did not meet IN discrepancy requirements (late 1980s)
- Kavale & Reese, IA, (prior to system reform), 45% of SLD sample did not meet discrepancy requirements when placed (early 1990s)
- California Studies, 50% of school identified SLD did not meet state criteria, Gresham, MacMillan, Bocian, et al. (late 1990s)
- Gottlieb, >80% of NY City SLD do not meet state criteria
- Credibility**

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Fidelity Issues in LD

- ❑ Poor compliance with federal and state regulations
- ❑ Practitioner perceptions do not support high fidelity
- ❑ Goal is classification and placement (perceived benefits to children) rather than fidelity
- ❑ Producing greater fidelity will be difficult because of prevailing practices
- ❑ **Nullification**: Professionals in teams decide to ignore classification criteria

Other Findings from SLD Identification

- ❑ Identified students had low achievement, usually in reading or reading and another area relative to other students in district
- ❑ Identification occurs in 3rd to middle grades
- ❑ Many were retained
- ❑ Persistent pattern of chronically low achievement
- ❑ About two-thirds show problems with inattention and mildly disruptive behaviors
- ❑ Search for a valid (and credible) basis for allocating resources

Implementation Fidelity Literature

- Persistent issue across disciplines
 - Treatment fidelity (psychotherapy)
 - Program implementation (rehabilitation & substance abuse)
 - Procedural reliability (applied behavior analysis)
 - Compliance to treatment regimens (medicine)
- Absent implementation fidelity, conclusions about identification validity impossible

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Motivation for Fidelity in Medicine

- Well developed treatment protocols, endorsed by professional organizations, scientifically based, e.g. ADHD by American Society of Pediatricians
- Insurance reimbursement dependent on fidelity of identification and implementing treatment protocols
- Possible malpractice
- **Credibility**: Research links identification fidelity to treatment protocol implementation fidelity to treatment outcomes

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Motivation for Improved Fidelity in SLD Identification

- Credibility of SLD Identification?
 - Scientifically valid?
 - Related to Treatments?
 - Treatments improve outcomes
- Which of SLD Identification Options come closest to being credible?
- Motivation for Fidelity?

Improving Fidelity

- Credibility-links of identification to treatment to improved outcomes
- Definitive description of operations, techniques, components
- Clear definitions of responsibilities by specific persons
- Measurement of the operations, techniques, components
- Feedback and decision making (formative evaluation)
- Sanctions for non-compliance

Advantages of Good Fidelity

- If SLD identification is credible (valid in terms of links to treatments and outcomes), then, high motivation because,
 - More consistent application of identification concepts and procedures leads to
 - More consistent selection and implementation of valid interventions leading to
 - More consistent and better child outcomes

Disadvantages of High Fidelity

- Disputes about boundaries, eligible vs ineligible
- Limitations on psychologists, teachers, and others re: range of professional judgment
 - Art vs Science
 - Creativity vs Implementation of a valid protocol
- Must account for and deal with non-responders

Producing Greater Fidelity

- ❑ Manualized treatments, e.g., Problem solving protocols or 3-Tier Reading
- ❑ Sp Ed is form-driven: Use to improve fidelity
 - ❑ Components specified
 - ❑ Operations defined
 - ❑ Permanent products generated
 - ❑ Comparisons of products to components and operations
 - ❑ Formative evaluation procedures implemented with subsequent components, operations, and permanent products specified

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Fidelity in the Literature

- ❑ Gresham et al. (2000) reviewed 479 articles published in 3 major LD journals (*JLD*, *LDQ*, & *LDR&P*) from 1995-1999
 - Of 479 articles, only 65 were intervention articles (13.5%)
 - Only 18.5% article reported integrity data
 - Little known re: how are treatments implemented?
 - Identification Fidelity?
 - ❑ Research identified samples vs.
 - ❑ School identified samples

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Measurement of Fidelity

- **Direct assessment** of identification fidelity
 - Based on systematic observation of treatment implementation
 - Based on task analysis of *major* treatment components
 - Occurrence & nonoccurrence of each components implemented recorded
 - Level of integrity calculated by computed % of components implemented
 - Major drawbacks: *Observer reactivity & time sampling*

Measurement of Fidelity cont.

- Indirect assessment of treatment integrity
 - Self reports/self monitoring (demand characteristics/social desirability)
 - Interviews
 - Behavior ratings by observers (Likert scales)
 - **Permanent products**
- Performance feedback can be used to dramatically increase integrity (weekly/daily) (note Witt studies)

Measures of Implementation Fidelity

- Self-Reports/Self-Monitoring
 - Protocol defining components, activities
 - Checklist reflecting components, activities
 - Completed checklist
 - Gap analysis, comparing intended and actual

Measures of Implementation Fidelity cont.

- Permanent products
 - Assessment results (CBM, behavior observation)
 - Videotapes of instructional sessions
 - Student work reflecting instructional elements
 - Graphs showing progress
 - Graphs showing application of formative evaluation rules

Example of Fidelity Monitoring Component and Daily Integrity

	Mon	Tues	Wed	Th	F	
1	X	X	X	0	X	80%
2	0	0	X	0	0	20%
3	X	X	X	X	X	100%
4	0	X	0	X	X	60%
5	X	X	0	X	0	60%
	60%	80%	60%	60%	60%	

M = 64%

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SLD Identification Factors

- ❑ Reschly, D. J., & Hosp, J. L. (2004) State SLD policies and practices. *Learning Disability Quarterly*, 27, 197-213.
- ❑ LD Identification Variables
 - Definition
 - Discrepancy determination method
 - Size of discrepancy required
 - Intelligence level
 - Exclusion factors
 - Requirement of processing deficit

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State Survey: Major Findings

- LD Definitions in the States
 - 82% (41 states) use definition from 34 C.F.R. 300.7 or a slight variation
 - 9 states use a different definition
- Nomenclature
 - Virtually all states use specific learning disability
 - Few variations, e.g., CO, Perceptual or Communicative Disability

State Survey: Major Findings

- Intellectual Ability (Assumption of "average" or "normal")
 - No state requires average or normal
 - All use MR as an exclusion factor
 - Studies of LD populations suggest that SEAs and LEAs are meeting an "above MR" criterion, but not an average criterion

State Survey: Major Findings

- Process requirements
 - 37/50 states do **not** require establishment of a cognitive processing deficiency (74%)
 - Processing deficiency largely ignored in state classification criteria
 - 6 states mention neurological impairment explicitly in classification criteria, but no procedures specified to operationalize (AR, DE, MD, NY, OK, and VT)

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State Survey: Major Findings

- Achievement Domains
 - Unanimity in broad domains of reading, mathematics, writing, oral expression, and listening comprehension
 - Some variations in subdomains: e.g. mathematics vs math computation and math reasoning
 - Some add spelling (AZ, CO, NH, NY)
 - One specifies non-verbal LD (NH)

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State Survey: Major Findings

- Unanimity on Exclusion Factors
 - All mention ED, MR, hearing, vision, or motor impairments, environmental, cultural, and economic disadvantage
 - A few identify additional exclusions such as autism, emotional stress, school or home adjustment problems, lack of motivation, and temporary crisis situation

State Survey: Severe Discrepancy

- Severe Discrepancy-intellectual ability and achievement
 - 48 of 50 states (exceptions-IA and LA)
 - Standard score or SD differences: 10 states. CA 1.5 SD difference
 - Regression methods or some variation: 20 states
 - Idiosyncratic, uninterpretable methods or no stated method in 18 states

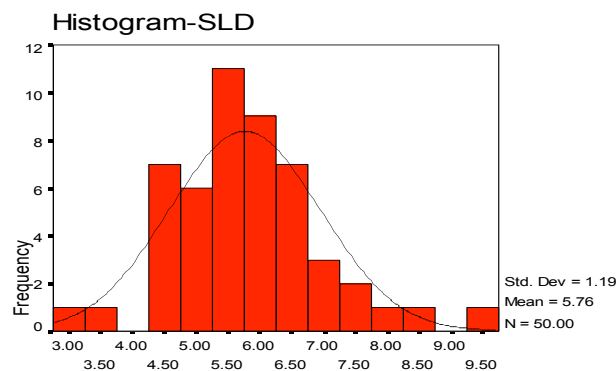
State Survey: Major Findings

- Criterion for severe discrepancy (how large?)
 - 30 of 48 states provide guidance
 - Focused on the magnitude of the required discrepancy if the IQ=100 (avoided effects of different regression methods)
 - States vary from 15 to 30 points
 - Size of discrepancy is unrelated to prevalence

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2001-2002 LD Prevalence KY 2.85% to RI 9.43%



Mean=5.8, SD=1.19

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SLD Identification Options and Implementation Fidelity

- ❑ Note Federal IDEA 2004 Statute
- ❑ LEAs will have options, with SEA guidance
- ❑ Options and Fidelity
 - IQ Achievement Discrepancy
 - Cognitive Processing
 - Response to Intervention
- ❑ Reschly, D. J. (2005). LD identification: primary intervention, secondary intervention, then what? *Journal of Learning Disabilities*, 38, 510-515.

Origins of IQ-Achievement Discrepancy

- ❑ 1975 Congress passed mandatory special education legislation, SLD included
 - Processing definition adopted
 - Processing measures and interventions repudiated in research published in early to mid 1970s
 - Huge concerns about over-identification and consistency; prevalence estimates varied from 2% to 32%
 - Congress mandated the development of LD classification criteria OR 2% cap imposed
 - Deadline of December 31, 1977

Origins of IQ-Achievement Discrepancy continued

- Enormous disagreement in the field in 1975-1977, >1000 letters to BEH
 - No consensus on SLD identification
 - Rutter & Yule studies-2 groups of poor readers
- Severe discrepancy between achievement and intellectual ability
 - Best alternative to a very difficult problem
 - Marker for LD, but never thought to be the essence of LD
 - Problems identified immediately (Danielson & Bauer, 1978)

LD Summit: Researchers' Conclusions and Recommendations

- LD Summit August 28-29 2001
- LD Researchers November 29-30 2001
 - Develop consensus on implications of research for practice in LD identification
 - Develop policy recommendations
 - R. Bradley, L. Danielson, & D. P. Hallahan (Eds.) Identification of learning disabilities: Research to practice (pp. 791-804). Mahwah, NJ: Lawrence Erlbaum

LD Researchers: IQ-Achievement Discrepancy

- Majority View IQ-Ach discrepancy neither necessary or sufficient. IQ testing not needed in most cases of suspected LD
 - Screen for MR, via achievement test, or screening measures in AB or IQ
- Minority View IQ-Ach discrepancy is an important marker, but not sufficient
 - Underachievement essential to LD

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Research on Discrepancy

- IQ-Achievement Discrepancy Is Invalid
 - Unreliable-Poor Stability across time or different pairs of tests
 - Invalid-Discrepancy is not related to growth in instructional interventions
 - Expensive
 - **Wait to Fail Effect (delays intervention until late 3rd or early 4th grades)**

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Validity of IQ Achievement Discrepancy

- NICHD and other studies
 - IQ discrepant do not do better than IQ-non-discrepant students in instructional interventions
 - Low reading achievement: higher IQ kids do not respond better than lower IQ kids
 - Researched down to IQ 80
- Implications for resource allocation???

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Fidelity of SLD Identification Using IQ-Achievement

- Poor record
- Fidelity could be improved with better specification, monitoring, and consequences
- Barriers
 - Credibility among practitioners is questionable
 - History of ignoring discrepancy or gaming the criteria

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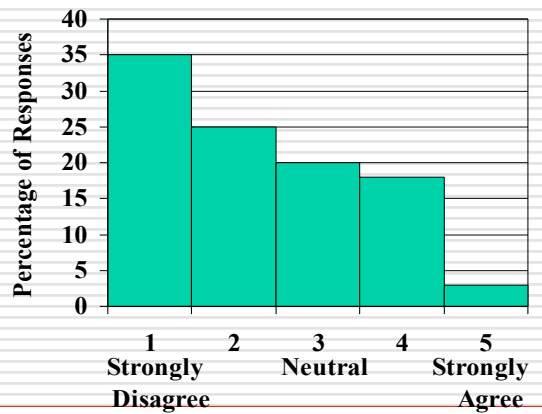
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The LD field should retain the **IQ-achievement** discrepancy criterion as an essential part of LD eligibility determination.

Responses of SEA SLD Contact Persons

□ M = 2.29

□ SD =
1.20



60% reject IQ-Ach Discrepancy

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LD Researchers: Processing Deficits

- Although processing difficulties have been linked to some SLD (e.g., phonological processing and reading), direct links with other processes have not been established. Currently available methods for measuring many processing difficulties are inadequate. Therefore, systematically measuring processing difficulties and their link to treatment is not yet feasible.

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Fidelity of SLD Identification Using Cognitive Processing

- ❑ Significant individual variations across cognitive processing measures are normal
 - Found with normal children and
 - Found with children with low achievement
 - No criterion for separating the “normal” cognitive processing variations of normal and low achieving children
 - Virtually ALL low achievers will show processing strengths and weaknesses
- ❑ Virtually impossible to establish criteria, a prerequisite to fidelity

LD Researchers: Response to Intervention (RTI)

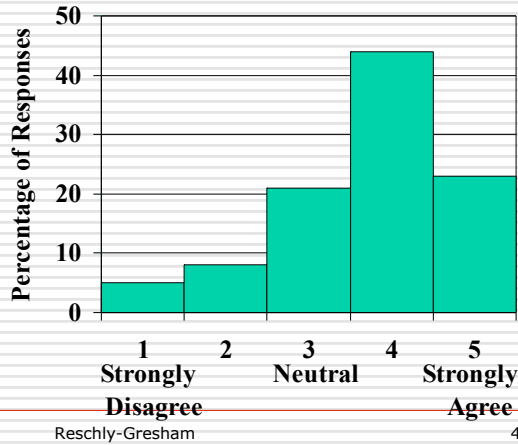
- ❑ Alternative Identification of LD
 - In addition to achievement testing, history, and observations
 - RTI is the most promising method
 - RTI promotes effective practices and closes gap between identification and treatment.
 - Problem-solving models that use progress monitoring with formative eval. are effective

The LD field should move to a response to treatment criterion for eligibility (with exclusion factors) to replace the IQ-achievement criterion.

Responses of SEA SLD Contact Persons

□ M = 3.71
 □ SD = 1.08

60% + endorse RTI
 In LD Identification



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Tier I: RTI Fidelity in General Education

Key Components in General Education

Effective GE Instruction	Direct Instruction	Screening 3 times per year	More intensive instruction	Decisions re: Tier II
Systematic curriculum	Checklist of key components	CBM Assessments	Identify non-predictors	RTI criteria
Critical Components	Instructional materials	Results graphed against goals	Increase instr. Intensity	Weeks more intensive GE
80% to 85% pass tests	Videos of classroom	Percent on trajectory	Monitor progress monthly	Trends in results
Improved results over time	Observations	Pursue options in GE Classroom	Decisions based on results	Goals for Tier II

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What is a Comprehensive Evaluation

- Note Federal Regulation,
 - (g) The child is assessed in all areas related to the suspected disability, including, **if appropriate**, health, vision, hearing, social and emotional status, general intelligence, academic performance, communicative status, and motor abilities. (34 C.F.R. 300.532)
- Meaning? Note “if appropriate”

Federal Requirements

- Multiple domains must be considered
- Screening in multiple domains followed by, if appropriate,
 - If potential educationally related deficits are suggested by screening, THEN
 - In depth assessment in the domain
- Principle: If screening suggests adequate functioning, then in depth assessment is wasteful and irrelevant

Comprehensive Evaluation: After Tier II

Domain	Screening	If depth, if appropriate	Possible Decision
Health	Nurse, records	Referral MD Eval	Medical condition
Vision	Nurse, records	Ophthalmology	Visual Impairment
Hearing	Nurse, records	Otological, Audiologist	Hearing Impairment
Intelligence	Records, Tch ratings, ach. tests	Psychologist, Gen'l Intell Functioning (GIF)	Sig subaverage GIF, possible MR, possible sp ed

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Comprehensive Evaluation: After Tier II

Domain	Screening	In Depth, If Appropriate	Possible Decision
Reading	Class work, Tch eval., CBM, group tests	Individual tests, diagnostic tests	More intense intervention, possible sp ed
Math	Class work, Tch eval., CBM, group tests	Individual tests, diagnostic tests	More intense intervention, possible sp ed
Adaptive Behavior	Records, Tch checklist	Observations Parent interview	Possible eligibility for MR
Written Language	Class work, Tch eval., CBM, group tests	Individual tests, diagnostic tests	More intense intervention, possible sp ed

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Comprehensive Evaluation: Post Tier II

Domain	Screening	In depth, if appropriate	Possible Decision
Communication	Tchr Observations, Sp/L screening	Sp/L eval, tests, obs.	Sp/Lang need, therapy
Behavior	Tchr judgment, checklists, nomination	Observation, Interview, Indiv intervention	
Emotional Regulation	Tchr judgment, checklists, nomination	Observation, Interview, Indiv intervention	More intense intervention, possible sp ed
Motor	Physical, Tch, PE observations <small>Reschly-Gresham</small>	Medical evaluation	More intense intervention, possible sp ed ⁵¹

Egberta Consideration of Eligibility

- Levels Difference:** Large performance differences compared to peers and benchmark expectations in relevant domains of behavior
- Rate Difference:** Large differences in rate of learning compared to peers and trajectories toward benchmark standards when provided with high quality interventions implemented over a significant period
- Documented Adverse Impact on Education
- Documented Need for Special Education
- Exit Criteria
- Exclusion Factors: Rule out MR etc.

LD Identification Issues

- ❑ NOT a new problem
- ❑ “One wonders if technically adequate solution to the problem of LD identification exists.” (p. 62)
- ❑ Danielson, L. C., & Bauer, Jane N. (1978). A formula-based classification of learning disabled children: An examination of the issues. *Journal of Learning Disabilities, 11*, 163-176.

Summary: Fidelity of SLD Identification

- ❑ Essential to consistent and fair application of SLD classification criteria
- ❑ Poor fidelity of current identification
- ❑ Improved fidelity is possible
 - Requires investments
 - Must be credible, perceived as valuable
- ❑ Application of known methodology