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ABSTRACT

A national sample of 118 teachers of learning disabled (LD) students described their school districts' criteria for identifying LD students and indicated their agreement or disagreement with the criteria. Four basic categories of definitions were reflected in the categories provided by the 118 teachers: ability-achievement discrepancy, achievement deficit, test scatter, and processing disorder. Reported criteria were characterized by variability, even within states, as were the teachers' stated agreement or disagreement with them. Findings suggested that the characteristics of students declared eligible for LD services are situation specific and do not reflect current knowledge, and that the criteria are vague and nonspecific. The need for alternative approaches to the identification of LD students was emphasized. (Author/CL)

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 **University of Minnesota**

Research Report No. 108

CRITERIA FOR IDENTIFYING LD STUDENTS:
DEFINITIONAL PROBLEMS EXEMPLIFIED

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January, 1983

Abstract

A national sample of 118 teachers of LD students described their school districts' criteria for identifying LD students and indicated their agreement or disagreement with the criteria. Reported criteria were characterized by variability, even within states, as were the teachers' stated agreement or disagreement with them. Implications of the continuing definitional crisis in the area of learning disabilities are explored.

Criteria for Identifying LD Students:

Definitional Problems Exemplified

It has been many years now since Mercer, Forgnone, and Wolking (1976) reported on their survey of definitions of learning disabilities used by state departments of education. At that time, they noted the variability in definitions used and suggested that the future success of the field of learning disabilities might be contingent upon the development of an acceptable definition of LD for practitioners and researchers. A survey of model LD programs by Thurlow and Ysseldyke (1979) revealed that at least seven different criteria were being used by 38 different centers to identify LD students.

Despite the field's recognition of the importance of a clear definition of learning disabilities and the need for concise criteria by which to identify LD students, the extent to which movement in this direction has occurred is questionable. A recent review of the literature revealed at least 47 different criteria that were suggested for use in identifying LD students (Epps, Ysseldyke, & Algozzine, 1982). However, current textbooks and other literature do not necessarily reflect the state of practice. The degree to which individual school districts have been able to develop workable criteria for identifying LD students is pertinent in addressing the issue.

LD teachers are those responsible for dealing with the students identified by school districts as being learning disabled. Their interpretations of their school districts' criteria for identifying LD students and their reactions to the criteria were the focus of the

present study.

Method

Subjects

Subjects were 127 LD teachers from 36 states, the District of Columbia, and Canada. These subjects were ones who responded to a survey sent to 400 members of the Council for Exceptional Children (CEC), Council for Learning Disabilities (CLD). The 31.8% response rate seemed to be artificially low due to the fact that not all CLD members are teachers of LD students. Although a cover letter requested recipients to forward the letter to LD teachers if they were not themselves LD teachers, the extent to which this occurred is unknown.

The communities in which the responding LD teachers were employed were characterized by 27 (21.2%) as rural, by 42 (33.1%) as urban, by 51 (40.2%) as suburban, and by 3 (2.4%) as a combination of two or three types; 4 (3.1%) individuals did not characterize their communities. Of the 127 subjects, 73 (57.5%) were teaching at the elementary level, 12 (9.4%) in middle schools, 25 (19.7%) at the secondary level, and 11 (8.7%) at more than one level; 6 (4.7%) individuals did not indicate the level at which they taught. The subjects included 7 (5.5%) males and 115 (90.6%) females; 5 (3.9%) individuals did not respond to this item.

Materials

A survey form asked teachers to specify their school district criteria for a student to be classified as LD and to indicate whether they agreed with the criteria. Teachers also were asked to provide

information about their backgrounds, the programs in which they were teaching, and the children served.

Procedure

In January 1981, surveys and stamped return envelopes were sent to 200 members of CLD. Two months later, an additional 200 CLD members were mailed the survey and stamped return envelopes. No attempt was made to send follow-up surveys to individuals who did not respond.

Results

Of the 127 teachers who returned the survey, 118 responded to the item about their school district criteria for LD classification. Of these 118 teachers, 49 (41.5%) agreed with the criteria, 30 (25.4%) disagreed, and 39 (33.0%) did not state specifically their agreement or disagreement with the criteria.

Four basic categories of definitions were reflected in the criteria provided by the 118 teachers: (a) ability-achievement discrepancy, (b) achievement deficit, (c) test scatter, and (d) processing disorder. No attempt was made to interpret responses that gave general items such as testing, team decision, federal or state guidelines, or learning problems as the criteria. These responses, plus others that were nonspecific or that indicated a noncategorical approach to special education placement, accounted for 38.1% of all responses. The nature of these responses will be explored later.

Of the 73 responses that could be categorized, 20 (27.4%) referred only to ability-achievement discrepancies, 14 (19.2%) referred only to achievement deficits, 2 (2.7%) referred only to test

scatter, and 3 (4.1%) referred only to processing disorders. The remaining 34 (46.6%) included combinations of the four categories. The most frequent combinations were (a) ability-achievement discrepancy + processing disorder (n = 11), (b) achievement deficit + processing disorder (n = 8), and (c) ability-achievement discrepancy + achievement deficit (n = 6). A list of the frequencies with which the basic categories and combinations of categories were given by the responding teachers appears in Table 1. Clearly, when summed across combinations, ability-achievement discrepancies were cited most often (n = 43), followed by achievement deficits (n = 35), processing disorders (n = 23), and test scatter (n = 11).

Insert Table 1 about here

Within categories of criteria, the extent to which teachers agreed or disagreed with the criteria demonstrated little consensus. These data are presented in Table 2. In most cases, the percentages of teachers who agreed and disagreed with a particular definition category were similar. Excluding those categories where percentages were based on less than 5 responses, only one (ability-achievement discrepancy + processing disorder) showed a difference of more than 15% in the two categories; however, in this case, almost equal percentages agreed and made no response.

Insert Table 2 about here

It should be noted that agreement or disagreement with a definition was coded only when the teacher explicitly indicated such. No attempt was made to interpret statements that were not explicit. However, some of the "no response" statements might easily be interpreted. Most of these non-explicit statements seemed to reflect disagreement with the definition. The following are some examples of non-explicit statements:

We miss, though, "gray area" kids - those who don't qualify but aren't making it in classes.

I feel the provision of average or above IQ should be specified.

A good system with the usual "loop holes."

If the guidelines were followed, I would agree with it, but most times the LD room becomes a dumping ground for many types of children.

Even within definition categories, the specific criteria differed. For example, within the ability-achievement discrepancy category, the following are but a few of the many criteria reported:

Students must have severe discrepancy in one or more of seven areas (severe discrepancy as difference between achievement and expected level achievement).

I.Q. of 80 and above with a differential between his actual and potential abilities.

Significant discrepancy between I.Q. and achievement.

One standard deviation below IQ in reading, mathematics, written language, or spelling.

Within the achievement deficit category, a variety of criteria also were specified:

K-1: 6 month delay; 2-3: 1 year delay; 4-8: 2 year delay; 9-12: below 7.0 grade level. Plus must prove they are not other classifications. (MR, OH, etc.).



6.

IQ 80 and above, functioning two years below grade level.

Three to four years below grade level, usually compounded by hyperactivity, speech disability, behavior problems, etc.

At the high school level the student must be 50% below grade level in one of the academic areas.

Common areas of inconsistency among criteria were the extent to which the student must be below grade level and the minimum intelligence score the student could obtain.

Even within states, the criteria used by school districts varied greatly. Table 3 is a summary of the frequencies with which each basic definition category was reflected in the criteria reported by individuals in those states from which 5 or more responses were obtained. In only one state was the percentage of teachers specifying one of the definitions within the four basic categories above 25%. In one state, 43% of the teachers reported criteria that fell within the "other" category. These criteria were characterized by considerable variability also.

Insert Table 3 about here

The eight responses from Kansas exemplify the variability in criteria used within states. Only two of the eight criteria reported fell within one of the definitions (excluding the "Other" category).

These were ability-achievement discrepancy criteria:

One standard deviation between IQ test and achievement test.

Average intelligence or above, not achieving as expected, deficiency in some area.

Three other responses reflected a combination of ability-achievement

discrepancy and other definition categories:

Significant discrepancy between achievement and potential or a marked perceptual problem.

Primarily intact, discrepancy between performance and expectancy, deviancy from norms and peer group.

Normal IQ on WISC-R or WAIS, Draw-A-Person and Bender-Gestalt. Academic - Key Math and California Achievement Test (Reading). Scores on academic tests under 6th grade level.

One teacher reported the use of an achievement deficit criterion for identifying LD students:

The student's achievement level is 2 or more years below his regular grade level.

Two other responses fell within the Other/Nonspecific definition category:

A battery of tests developed on the Bayesian theory, and a WISC-R.

Normal IQ, learning and skill deficits related to specific Learning Disability; no evidence of physical, mental, socio-economic deficit that might affect learning.

As might be expected, the extent to which teachers within states agreed with their school districts' criteria also was highly variable. For example, within Kansas, 50% of the teachers agreed with the criteria and 12% disagreed; the remaining teachers did not specifically state their agreement or disagreement. Two of these teachers did not make any statement about their agreement with the criteria. The other teacher made the following comment:

I agree with it as much as I can agree with any test or tests. Another component should be a test of social perception and periods of trial teaching.

Similarly, in Illinois 31% of the 13 teachers who responded indicated agreement with their school districts' criteria, 31% disagreed, and

38% did not specifically state their agreement or disagreement.

The Other/Nonspecific category included a wide range of criteria. Most of these could be characterized as some type of testing criteria.

The following are examples of responses that fell within this subcategory:

Must be low in many areas; tests must indicate problem; all members of multidisciplinary staffing must agree.

School psychometric testing results.

Standard test scores given by the resource room aide - academic - and psychologist - IQ and intelligence and perceptual, etc.

Adherence to state guidelines were reported next most often, followed by criteria that indicated some type of learning problem. Examples of responses that fell within the latter subcategory are:

Primarily - difficulty in functioning in the regular classroom.

Our "hard to teach" have been identified as having intellectual-visual and auditory integrity - but they are having difficulty learning in our regular programs.

Above 80 IQ, trouble with school subjects.

Other subcategories that characterized the Other/Nonspecific responses were those that emphasized the team approach, use of a formula, or a non-categorical approach.

Several teachers made comments about the criteria being used by their school districts. The comment of one of the teachers who worked in several school districts confirmed the variability in criteria even within states. The following comment was made by this teacher:

We serve 10 school districts. Each has own criterion. I do not agree with most of them. They tend to use a formula.

Other teachers commented on the lack of criteria within their school

districts:

No specific criteria have been formulated. Some child study teams are using 70% of expected level and below qualify. Rest are individual building decisions.

There is none. It depends on the teacher's philosophy, knowledge, and status of child's family in the community. I do not agree with it.

Several teachers noted that the criteria of their school districts resulted in the exclusion of some students who needed help:

A formula is used to determine severe discrepancy; it does not always allow us to serve higher functioning LD students who need help in areas other than academics per se.

Poor academic achievement with respect to potential. I do not agree - what about slow learners? Those functioning close to grade level with potential to be above?

Must fall below a specified percentile rank as measured by/compared to IQ (individual) score, so "gifted" can qualify. We miss, though, "gray area" kids - those who don't qualify but aren't making it in classes.

IQ 80 and above functioning academically 2 years below grade level. 2 years below - too much - esp. primary grades - should be special services for "slow learners" - they slip through cracks.

Average or above IQ. Wide discrepancy between verbal and performance. Academic failure in regular class. I agree - but would like to see program broadened to include slow learners with LD characteristics.

Same as Federal guidelines. Agree, except for a child being disqualified if learning problems are caused by environmental factors.

A number of teachers were quite strong in their agreement or disagreement with the criteria used in their school districts:

There has to be a severe discrepancy between a child's expected achievement and actual achievement, in most cases at least a 1.5 or 2 year discrepancy. I believe that children less than 1.5 years behind still need individualized help, but that their needs can be met in a regular class. The problem is finding regular teachers who are willing to work a touch harder to provide for these students. What usually

happens is that these students are ignored in the regular class until they miss so much that they do finally become 1.5 to 2.0 years behind and will then qualify for L.D., when early intervention in the regular class could have prevented this.

A discrepancy of 2 years between academic performance and estimated potential ability. This is correlated with a WISC-R Full Scale IQ and the use of the WRAT, neither of which is adequate by itself. NO, I do not agree with the classification procedure - a 2 year discrepancy at the elementary level is a crime!

4 years deficit and discretion of Sp Ed Director. Hell NO!

1.90 or above IQ. 2.3 or more process disorders below 70%. Presently the system is working. I feel we have truly learning disabled students in the program.

Other teachers noted specific problems that their school districts were encountering in implementing the stated criteria:

Severe discrepancy between present functioning and measured intellectual ability with accompanying processing problems. We are having difficulty deciding what a severe discrepancy is.

"Normal IQ" with disorder in 1 or more processes not as a result of visual, hearing, motor, mental, or emotional handicap or cultural, environmental or economic disadvantage. We have most problems distinguishing between strength of disability or emotionality (which is more handicapping?) or separating disadvantaged from disabled.

One teacher expressed dissatisfaction with the teacher's role in identifying LD students:

Average or above I.Q. (agree) Discrepancy between expected and actual achievement (somewhat agree). Depending on grade placement, a given number of grade levels below actual grade on achievement tests (disagree-actual performance should hold as much or more weight in determining "where he/she is"). I feel the classroom teacher's opinion should be regarded more highly instead of how the child did on tests. More observations by administrators since they decide on placement.

Others commented on the practice of placing students in LD programs even though the students might not fit a rigid definition. Some

viewed this in a positive light and others in a negative light:

Yes. Significant discrepancy between performance and verbal IQ. Indication of average to above average intelligence or discrepancy between skills and performance. Diagnostic placements are made when testing does not indicate a clear pattern yet academic performance is weak. Criteria are flexible enough that children are not denied services because they cannot be labeled.

There are state guidelines concerning the LD child. If the guidelines were followed, I would agree with it, but most times the LD room becomes a dumping ground for many types of children.

No. L.D., M.R., perceptually handicapped, behaviorally-maladjusted and specific learning-disabilities are handled piece-meal, as if each is a "disease" unto itself. A perceptually handicapped child, thus, does not have any specific-learning-disability, and a learning disabled child is a general cover for kids they can't pin a more specific label on. At least emotionally disturbed students are allowed to have all or none of the above as they "choose."

One teacher's comments indicated that the problem was not with the criteria, but rather the regular classroom situation that leads to the referral of a student:

Primarily - difficulty in functioning in the regular classroom. I would agree with it more if the regular classroom were small enough (# of students) and had flexible enough curriculum so that more students could be accommodated in regular classes.

Another teacher expressed general dissatisfaction with the whole process:

I wish you'd asked what interferes most with teaching and disturbs teachers the most! I think the answer would have been unanimous--gov't. regulations.

Discussion

Criteria for identifying students as learning disabled remain highly variable from one state to the next, and even within states. The implications of such variability have been examined previously

(e.g., Algozzine & Ysseldyke, 1982; Algozzine & Ysseldyke, in press; Ysseldyke, Algozzine, & Epps, in press). Too often, it appears that the characteristics of students declared eligible for LD services are situation specific (Ysseldyke & Thurlow, 1980). Further, many of the criteria that are used do not reflect current knowledge. For example, 50% of the respondents indicating an achievement deficit criterion reported that the child needed to be at least two years below grade level. However, this practice tends to result in overestimating disabilities at upper grade levels while underestimating disabilities at the lower grade levels (Reynolds, 1981).

As described by the teachers responsible for dealing with LD students, the criteria being used by schools to identify the students, in general, are vague and nonspecific. They do not exhibit the universal and specific qualities that are necessary for adequate definitions of handicapping conditions (cf. Ysseldyke & Algozzine, in press). It is noteworthy that most of the criteria had to be categorized within a nonspecific "Other" category. Consistency among school districts in criteria used to define learning disabilities is low. Further, LD teachers show little consensus in their agreement or disagreement with the criteria that are used. On the whole, however, considerable negativism was evident in the comments made by LD teachers regarding the adequacy of the definitions. Unfortunately, suggested alternatives were few. Many of those suggested were similar to ones used in other school districts, and as often as not, teachers in those districts had indicated disagreement with them. Some teachers believed that slow learners should be served within the LD

category. Others indicated that LD students and slow learners needed to be differentiated by establishing higher IQ cutoffs. Some teachers believed that gifted students should be served within the LD category. Others did not. The teachers' comments suggest that not only is there little national consensus about a definition of learning disabilities, but there also is little agreement as to who should be served by LD services (cf. Thurlow & Ysseldyke, 1982).

The results from this survey of LD teachers provide additional evidence of the need for an alternative approach to the identification of LD students. Ysseldyke and Algozzine (in press) have argued that educators are focusing on the wrong issues in their attempts to define and redefine learning disabilities. The issue, rather, is what should educators be doing for students in need of remedial education because they are failing in school. Several of the teachers responding to the current survey made comments indicative of an awareness of this need, at least to some degree. Some spoke of the greater relevance of classroom teacher input than test data to the decision as to whether a student received special education services. Another spoke of the need for early intervention in the regular class with students whose deficits are not as severe as they will be in one or two years of no attention to their difficulties. Redirection of focus in special education toward instruction rather than classification has promise not only for students, but also for educators.

References

- Algozzine, B., & Ysseldyke, J. E. Classification decisions in learning disabilities. Educational and Psychological Research, 1982, 2, 117-129.
- Algozzine, B., & Ysseldyke, J. E. Learning disabilities as a subset of school failure: The oversophistication of a concept. Exceptional Children, in press.
- Epps, S., Ysseldyke, J. E., & Algozzine, B. An analysis of the conceptual framework underlying definitions of learning disabilities (Research Report No. 98). Minneapolis: University of Minnesota, Institute for Research on Learning Disabilities, 1982.
- Mercer, C. O., Forgnone, C., & Wolking, W. D. Definitions of learning disabilities used in the United States. Journal of Learning Disabilities, 1976, 9, 376-386.
- Reynolds, C. R. The fallacy of "two years below grade level for age" as a diagnostic criterion for reading disorders. Journal of School Psychology, 1981, 4, 350-358.
- Thurlow, M. L., & Ysseldyke, J. E. Current assessment and decision-making practices in model LD programs. Learning Disability Quarterly, 1979, 2, 15-24.
- Thurlow, M. L., & Ysseldyke, J. E. Teachers' beliefs about LD students (Research Report No. 66). Minneapolis: University of Minnesota, Institute for Research on Learning Disabilities, 1982.
- Ysseldyke, J. E., & Algozzine, B. LD or not LD: That's not the question! Journal of Learning Disabilities, in press.
- Ysseldyke, J. E., Algozzine, B., & Epps, S. A logical and empirical analysis of current practices in classifying students as handicapped. Exceptional Children, in press.
- Ysseldyke, J. E., & Thurlow, M. L. (Eds.). The special education assessment and decision-making process: Seven case studies (Research Report No. 44). Minneapolis: University of Minnesota, Institute for Research on Learning Disabilities, 1980.

Table 1
 Numbers and Percentages of Teachers' Criteria Responses
 in Categories and Combinations of Categories

Category	Number	Percentage
Ability-Achievement Discrepancy	20	16.9
+ Processing Disorder	11	9.3
+ Achievement Deficit	6	5.1
+ Test Scatter	2	1.7
+ Ach Deficit and Test Scatter	4	3.4
Achievement Deficit	14	11.9
+ Processing Disorder	8	6.8
+ Test Scatter	2	1.7
+ Processing Disorder and Test Scatter	1	0.8
Processing Disorder	3	2.5
Test Scatter	2	1.7
Other (Nonspecific)	45	38.1

Table 2
 Percentage of Teachers Agreeing or Disagreeing with
 Various LD Criteria^a

Category	Agree	Disagree	No Response
Ability-Achievement Discrepancy	40.0	25.0	35.0
+ Processing Disorder	54.5	0.0	45.4
+ Achievement Deficit	33.3	33.3	33.3
+ Test Scatter*	50.0	50.0	0.0
+ Ach Deficit and Test Scatter*	25.0	50.0	25.0
Achievement Deficit	35.7	35.7	28.6
+ Processing Disorder	25.0	12.5	62.5
+ Test Scatter*	50.0	50.0	0.0
+ Processing Disorder and + Test Scatter*	100.0	0.0	0.0*
Processing Disorder*	33.3	0.0	66.7
Test Scatter*	100.0	0.0	0.0
Other (Nonspecific)	31.1	20.0	48.9

^a Percentages are based only on those responses within a category.
 Percentages for categories with * following them were based on less
 than 5 responses.

Table 3

Numbers and Percentages of Teachers' Criteria Responses in Categories and Combinations of Categories for States Represented by at Least Five Responses^a

Category	State					
	AL	CA	IL	KS	OH	PA
Ability-Achievement Discrepancy	1(20)	2(22)	1(8)	2(25)	2(40)	1(20)
+ Processing Disorder	0	1(11)	0	1(12)	1(20)	1(20)
+ Achievement Deficit	1(20)	0	1(8)	1(12)	1(20)	0
+ Test Scatter	0	0	1(8)	0	0	0
+ Ach Deficit and Test Scatter	0	2(22)	0	1(12)	0	0
Achievement Deficit	0	2(22)	0	1(12)	0	0
+ Processing Disorder	1(20)	0	1(8)	0	0	0
+ Processing Disorder and Test Scatter	0	0	1(8)	0	0	0
Processing Disorder	0	0	0	0	0	1(20)
Test Scatter	0	0	1(8)	0	0	1(20)
Other (Nonspecific)	1(20)	2(22)	6(46)	2(25)	1(20)	1(20)
Total	5	9	13	8	5	5

^aPercentages are in parentheses.

PUBLICATIONS

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75 East River Road, University of Minnesota, Minneapolis, MN 55455.

Ysseldyke, J. E. Assessing the learning disabled youngster: The state of the art (Research Report No. 6). November, 1977.

Ysseldyke, J. E., & Regan, R. R. Nondiscriminatory assessment and decision making (Monograph No. 7). February, 1979.

Foster, G., Algozzine, B., & Ysseldyke, J. Susceptibility to stereotypic bias (Research Report No. 3). March, 1979.

Algozzine, B. An analysis of the disturbingness and acceptability of behaviors as a function of diagnostic label (Research Report No. 4). March, 1979.

Algozzine, B., & McGraw, K. Diagnostic testing in mathematics: An extension of the PIAT? (Research Report No. 5). March, 1979.

Deno, S. L. A direct observation approach to measuring classroom behavior: Procedures and application (Research Report No. 6). April, 1979.

Ysseldyke, J. E., & Mirkin, P. K. Proceedings of the Minnesota round-table conference on assessment of learning disabled children (Monograph No. 8). April, 1979.

Somwaru, J. P. A new approach to the assessment of learning disabilities (Monograph No. 9). April, 1979.

Algozzine, B., Forgnone, C., Mercer, C. D., & Trifiletti, J. J. Toward defining discrepancies for specific learning disabilities: An analysis and alternatives (Research Report No. 7). June, 1979.

Algozzine, B. The disturbing child: A validation report (Research Report No. 8). June, 1979.

Note: Monographs No. 1 - 6 and Research Report No. 2 are not available for distribution. These documents were part of the Institute's 1979-1980 continuation proposal, and/or are out of print.

- Ysseldyke, J. E., Algozzine, B., Regan, R., & Potter, M. Technical adequacy of tests used by professionals in simulated decision making (Research Report No. 9). July, 1979.
- Jenkins, J. R., Deno, S. L., & Mirkin, P. K. Measuring pupil progress toward the least restrictive environment (Monograph No. 10). August, 1979.
- Mirkin, P. K., & Deno, S. L. Formative evaluation in the classroom: An approach to improving instruction (Research Report No. 10). August, 1979.
- Thurlow, M. L., & Ysseldyke, J. E. Current assessment and decision-making practices in model programs for the learning disabled (Research Report No. 11). August, 1979.
- Deno, S. L., Chiang, B., Tindal, G., & Blackburn, M. Experimental analysis of program components: An approach to research in CSDC's (Research Report No. 12). August, 1979.
- Ysseldyke, J. E., Algozzine, B., Shinn, M., & McGue, M. Similarities and differences between underachievers and students labeled learning disabled: Identical twins with different mothers (Research Report No. 13). September, 1979.
- Ysseldyke, J., & Algozzine, R. Perspectives on assessment of learning disabled students (Monograph No. 11). October, 1979.
- Poland, S. F., Ysseldyke, J. E., Thurlow, M. L., & Mirkin, P. K. Current assessment and decision-making practices in school settings as reported by directors of special education (Research Report No. 14). November, 1979.
- McGue, M., Shinn, M., & Ysseldyke, J. Validity of the Woodcock-Johnson psycho-educational battery with learning disabled students (Research Report No. 15). November, 1979.
- Deno, S., Mirkin, P., & Shinn, M. Behavioral perspectives on the assessment of learning disabled children (Monograph No. 12). November, 1979.
- Sutherland, J. H., Algozzine, B., Ysseldyke, J. E., & Young, S. What can I say after I say LD? (Research Report No. 16). December, 1979.
- Deno, S. L., & Mirkin, P. K. Data-based IEP development: An approach to substantive compliance (Monograph No. 13). December, 1979.
- Ysseldyke, J., Algozzine, B., Regan, R., & McGue, M. The influence of test scores and naturally-occurring pupil characteristics on psycho-educational decision making with children (Research Report No. 17). December, 1979.
- Algozzine, B., & Ysseldyke, J. E. Decision makers' prediction of students' academic difficulties as a function of referral information (Research Report No. 18). December, 1979.

- Ysseldyke, J. E., & Algozzine, B. Diagnostic classification decisions as a function of referral information (Research Report No. 19). January, 1980.
- Deno, S. L., Mirkin, P. K., Chiang, B., & Lowry, L. Relationships among simple measures of reading and performance on standardized achievement tests (Research Report No. 20). January, 1980.
- Deno, S. L., Mirkin, P. K., Lowry, L., & Kuehnle, K. Relationships among simple measures of spelling and performance on standardized achievement tests (Research Report No. 21). January, 1980.
- Deno, S. L., Mirkin, P. K., & Marston, D. Relationships among simple measures of written expression and performance on standardized achievement tests (Research Report No. 22). January, 1980.
- Mirkin, P. K., Deno, S. L., Tindal, G., & Kuehnle, K. Formative evaluation: Continued development of data utilization systems (Research Report No. 23). January, 1980.
- Deno, S. L., Mirkin, P. K., Robinson, S., & Evans, P. Relationships among classroom observations of social adjustment and sociometric rating scales (Research Report No. 24). January, 1980.
- Thurlow, M. L., & Ysseldyke, J. E. Factors influential on the psycho-educational decisions reached by teams of educators (Research Report No. 25). February, 1980.
- Ysseldyke, J. E., & Algozzine, B. Diagnostic decision making in individuals susceptible to biasing information presented in the referral case folder (Research Report No. 26). March, 1980.
- Thurlow, M. L., & Greener, J. W. Preliminary evidence on information considered useful in instructional planning (Research Report No. 27). March, 1980.
- Ysseldyke, J. E., Regan, R. R., & Schwartz, S. Z. The use of technically adequate tests in psychoeducational decision making (Research Report No. 28). April, 1980.
- Richey, L., Potter, M., & Ysseldyke, J. Teachers' expectations for the siblings of learning disabled and non-learning disabled students: A pilot study (Research Report No. 29). May, 1980.
- Thurlow, M. L., & Ysseldyke, J. E. Instructional planning: Information collected by school psychologists vs. information considered useful by teachers (Research Report No. 30). June, 1980.
- Algozzine, B., Webber, J., Campbell, M., Moore, S., & Gilliam, J. Classroom decision making as a function of diagnostic labels and perceived competence (Research Report No. 31). June, 1980.

- Ysseldyke, J. E., Algozzine, B., Regan, R. R., Potter, M., Richey, L., & Thurlow, M. L. Psychoeducational assessment and decision making: A computer-simulated investigation (Research Report No. 32). July, 1980.
- Ysseldyke, J. E., Algozzine, B., Regan, R. R., Potter, M., & Richey, L. Psychoeducational assessment and decision making: Individual case studies, (Research Report No. 33). July, 1980.
- Ysseldyke, J. E., Algozzine, B., Regan, R., Potter, M., & Richey, L. Technical supplement for computer-simulated investigations of the psychoeducational assessment and decision-making process (Research Report No. 34). July, 1980.
- Algozzine, B., Stevens, L., Costello, C., Beattie, J., & Schmid, R. Classroom perspectives of LD and other special education teachers (Research Report No. 35). July, 1980.
- Algozzine, B., Siders, J., Siders, J., & Beattie, J. Using assessment information to plan reading instructional programs: Error analysis and word attack skills (Monograph No. 14). July, 1980.
- Ysseldyke, J., Shinn, M., & Epps, S. A comparison of the WISC-R and the Woodcock-Johnson Tests of Cognitive Ability (Research Report No. 36). July, 1980.
- Algozzine, B., & Ysseldyke, J. E. An analysis of difference score reliabilities on three measures with a sample of low achieving youngsters (Research Report No. 37). August, 1980.
- Shinn, M., Algozzine, B., Marston, D., & Ysseldyke, J. A theoretical analysis of the performance of learning disabled students on the Woodcock-Johnson Psycho-Educational Battery (Research Report No. 38). August, 1980.
- Richey, L. S., Ysseldyke, J., Potter, M., Regan, R. R., & Greener, J. Teachers' attitudes and expectations for siblings of learning disabled children (Research Report No. 39). August, 1980.
- Ysseldyke, J. E., Algozzine, B., & Thurlow, M. L. (Eds.). A naturalistic investigation of special education team meetings (Research Report No. 40). August, 1980.
- Meyers, B., Meyers, J., & Deno, S. Formative evaluation and teacher decision making: A follow-up investigation (Research Report No. 41). September, 1980.
- Fuchs, D., Garwick, D. R., Featherstone, N., & Fuchs, L. S. On the determinants and prediction of handicapped children's differential test performance with familiar and unfamiliar examiners (Research Report No. 42). September, 1980.

- Algozzine, B., & Stoller, L. Effects of labels and competence on teachers' attributions for a student (Research Report No. 43). September, 1980.
- Ysseldyke, J. E., & Thurlow, M. L. (Eds.). The special education assessment and decision-making process: Seven case studies (Research Report No. 44). September, 1980.
- Ysseldyke, J. E., Algozzine, B., Potter, M., & Regan, R. A descriptive study of students enrolled in a program for the severely learning disabled (Research Report No. 45). September, 1980.
- Marston, D. Analysis of subtest scatter on the tests of cognitive ability from the Woodcock-Johnson Psycho-Educational Battery (Research Report No. 46). October, 1980.
- Algozzine, B., Ysseldyke, J. E., & Shinn, M. Identifying children with learning disabilities: When is a discrepancy severe? (Research Report No. 47). November, 1980.
- Fuchs, L., Tindal, J., & Deno, S. Effects of varying item domain and sample duration on technical characteristics of daily measures in reading (Research Report No. 48). January, 1981.
- Marston, D., Lowry, L., Deno, S., & Mirkin, P. An analysis of learning trends in simple measures of reading, spelling, and written expression: A longitudinal study (Research Report No. 49). January, 1981.
- Marston, D., & Deno, S. The reliability of simple, direct measures of written expression (Research Report No. 50). January, 1981.
- Epps, S., McGue, M., & Ysseldyke, J. E. Inter-judge agreement in classifying students as learning disabled (Research Report No. 51). February, 1981.
- Epps, S., Ysseldyke, J. E., & McGue, M. Differentiating LD and non-LD students: "I know one when I see one" (Research Report No. 52). March, 1981.
- Evans, P. R., & Peham, M. A. S. Testing and measurement in occupational therapy. A review of current practice with special emphasis on the Southern California Sensory Integration Tests (Monograph No. 15). April, 1981.
- Fuchs, L., Wesson, C., Tindal, G., & Mirkin, P. Teacher efficiency in continuous evaluation of IEP goals (Research Report No. 53). June, 1981.
- Fuchs, D., Featherstone, N., Garwick, D. R., & Fuchs, L. S. The importance of situational factors and task demands to handicapped children's test performance (Research Report No. 54). June, 1981.

- Tindal, G., & Deno, S. L. Daily measurement of reading: Effects of varying the size of the item pool (Research Report No. 55). July, 1981.
- Fuchs, L. S., & Deno, S. L. A comparison of teacher judgment, standardized tests, and curriculum-based approaches to reading placement (Research Report No. 56). August, 1981.
- Fuchs, L., & Deno, S. The relationship between curriculum-based mastery measures and standardized achievement tests in reading (Research Report No. 57). August, 1981.
- Christenson, S., Graden, J., Potter, M., & Ysseldyke, J. Current research on psychoeducational assessment and decision making: Implications for training and practice (Monograph No. 16). September, 1981.
- Christenson, S., Ysseldyke, J., & Algozzine, B. Institutional constraints and external pressures influencing referral decisions (Research Report No. 58). October, 1981.
- Fuchs, L., Fuchs, D., & Deno, S. Reliability and validity of curriculum-based informal reading inventories (Research Report No. 59). October, 1981.
- Algozzine, B., Christenson, S., & Ysseldyke, J. Probabilities associated with the referral-to-placement process (Research Report No. 60). November, 1981.
- Tindal, G., Fuchs, L., Christenson, S., Mirkin, P., & Deno, S. The relationship between student achievement and teacher assessment of short- or long-term goals (Research Report No. 61). November, 1981.
- Mirkin, P., Fuchs, L., Tindal, G., Christenson, S., & Deno, S. The effect of IEP monitoring strategies on teacher behavior (Research Report No. 62). December, 1981.
- Wesson, C., Mirkin, P., & Deno, S. Teachers' use of self instructional materials for learning procedures for developing and monitoring progress on IEP goals (Research Report No. 63). January, 1982.
- Fuchs, L., Wesson, C., Tindal, G., Mirkin, P., & Deno, S. Instructional changes, student performance, and teacher preferences: The effects of specific measurement and evaluation procedures (Research Report No. 64). January, 1982.
- Potter, M., & Mirkin, P. Instructional planning and implementation practices of elementary and secondary resource room teachers: Is there a difference? (Research Report No. 65). January, 1982.

- Thurlow, M. L., & Ysseldyke, J. E. Teachers' beliefs about LD students (Research Report No. 66). January, 1982.
- Graden, J., Thurlow, M. L., & Ysseldyke, J. E. Academic engaged time and its relationship to learning: A review of the literature (Monograph No. 17). January, 1982.
- King, R., Wesson, C., & Deno, S. Direct and frequent measurement of student performance: Does it take too much time? (Research Report No. 67). February, 1982.
- Greener, J. W., & Thurlow, M. L. Teacher opinions about professional education training programs (Research Report No. 68). March, 1982.
- Algozzine, B., & Ysseldyke, J. Learning disabilities as a subset of school failure: The oversophistication of a concept (Research Report No. 69). March, 1982.
- Fuchs, D., Zern, D. S., & Fuchs, L. S. A microanalysis of participant behavior in familiar and unfamiliar test conditions (Research Report No. 70). March, 1982.
- Shinn, M. R., Ysseldyke, J., Deno, S., & Tindal, G. A comparison of psychometric and functional differences between students labeled learning disabled and low achieving (Research Report No. 71). March, 1982.
- Thurlow, M. L., Graden, J., Greener, J. W., & Ysseldyke, J. E. Academic responding time for LD and non-LD students (Research Report No. 72). April, 1982.
- Graden, J., Thurlow, M., & Ysseldyke, J. Instructional ecology and academic responding time for students at three levels of teacher-perceived behavioral competence (Research Report No. 73). April, 1982.
- Algozzine, B., Ysseldyke, J., & Christenson, S. The influence of teachers' tolerances for specific kinds of behaviors on their ratings of a third grade student (Research Report No. 74). April, 1982.
- Wesson, C., Deno, S., & Mirkin, P. Research on developing and monitoring progress on IEP goals: Current findings and implications for practice (Monograph No. 18). April, 1982.
- Mirkin, P., Marston, D., & Deno, S. L. Direct and repeated measurement of academic skills: An alternative to traditional screening, referral, and identification of learning disabled students (Research Report No. 75). May, 1982.

- Algozzine, B., Ysseldyke, J., Christenson, S., & Thurlow, M. Teachers' intervention choices for children exhibiting different behaviors in school (Research Report No. 76). June, 1982.
- Tucker, J., Stevens, L. J., & Ysseldyke, J. E. Learning disabilities: The experts speak out (Research Report No. 77). June, 1982.
- Thurlow, M. L., Ysseldyke, J. E., Graden, J., Greener, J. W., & Mecklenberg, C. Academic responding time for LD students receiving different levels of special education services (Research Report No. 78). June, 1982.
- Graden, J. L., Thurlow, M. L., Ysseldyke, J. E., & Algozzine, B. Instructional ecology and academic responding time for students in different reading groups (Research Report No. 79). July, 1982.
- Mirkin, P. K., & Potter, M. L. A survey of program planning and implementation practices of LD teachers (Research Report No. 80). July, 1982.
- Fuchs, L. S., Fuchs, D., & Warren, L. M. Special education practice in evaluating student progress toward goals (Research Report No. 81). July, 1982.
- Kuehnle, K., Deno, S. L., & Mirkin, P. K. Behavioral measurement of social adjustment: What behaviors? What setting? (Research Report No. 82). July, 1982.
- Fuchs, D., Dailey, Ann Madsen, & Fuchs, L. S. Examiner familiarity and the relation between qualitative and quantitative indices of expressive language (Research Report No. 83). July, 1982.
- Videen, J., Deno, S., & Marston, D. Correct word sequences: A valid indicator of proficiency in written expression (Research Report No. 84). July, 1982.
- Potter, M. L. Application of a decision theory model to eligibility and classification decisions in special education (Research Report No. 85). July, 1982.
- Greener, J. E., Thurlow, M. L., Graden, J. L., & Ysseldyke, J. E. The educational environment and students' responding times as a function of students' teacher-perceived academic competence (Research Report No. 86). August, 1982.
- Deno, S., Marston, D., Mirkin, P., Lowry, L., Sindelar, P., & Jenkins, J. The use of standard tasks to measure achievement in reading, spelling, and written expression: A normative and developmental study (Research Report No. 87). August, 1982.
- Skiba, R., Wesson, C., & Deno, S. L. The effects of training teachers in the use of formative evaluation in reading: An experimental-control comparison (Research Report No. 88). September, 1982.

- Marston, D., Tindal, G., & Deno, S. L. Eligibility for learning disability services: A direct and repeated measurement approach (Research Report No. 89). September, 1982.
- Thurlow, M. L.; Ysseldyke, J. E., & Graden, J. L. LD students', active academic responding in regular and resource classrooms (Research Report No. 90). September, 1982.
- Ysseldyke, J. E., Christenson, S., Pianta, R., Thurlow, M. L., & Algozzine, B. An analysis of current practice in referring students for psycho-educational evaluation: Implications for change (Research Report No. 91). October, 1982.
- Ysseldyke, J. E., Algozzine, B., & Epps, S. A logical and empirical analysis of current practices in classifying students as handicapped (Research Report No. 92). October, 1982.
- Tindal, G., Marston, D., Deno, S. L., & Germann, G. Curriculum differences in direct repeated measures of reading (Research Report No. 93). October, 1982.
- Fuchs, L.S., Deno, S. L., & Marston, D. Use of aggregation to improve the reliability of simple direct measures of academic performance (Research Report No. 94). October, 1982.
- Ysseldyke, J. E., Thurlow, M. L., Mecklenburg, C., & Graden, J. Observed changes in instruction and student responding as a function of referral and special education placement (Research Report No. 95). October, 1982.
- Fuchs, L. S., Deno, S. L., & Mirkin, P. K. Effects of frequent curriculum-based measurement and evaluation on student achievement and knowledge of performance: An experimental study (Research Report No. 96). November, 1982.
- Fuchs, L. S., Deno, S. L., & Mirkin, P. K. Direct and frequent measurement and evaluation: Effects on instruction and estimates of student progress (Research Report No. 97). November, 1982.
- Tindal, G., Wesson, C., Germann, G., Deno, S. L., & Mirkin, P. K. The Pine County model for special education delivery: A data-based system (Monograph No. 19). November, 1982.
- Epps, S., Ysseldyke, J. E., & Algozzine, B. An analysis of the conceptual framework underlying definitions of learning disabilities (Research Report No. 98). November, 1982.
- Epps, S., Ysseldyke, J. E., & Algozzine, B. Public-policy implications of different definitions of learning disabilities (Research Report No. 99). November, 1982.
- Ysseldyke, J. E., Thurlow, M. L., Graden, J. L., Wesson, C., Deno, S. L., & Algozzine, B. Generalizations from five years of research on assessment and decision-making (Research Report No. 100). November, 1982.

- Marston, D., & Deno, S. L. Measuring academic progress of students with learning difficulties: A comparison of the semi-logarithmic, chart and equal interval graph paper (Research Report No. 101). November, 1982.
- Beattie, S., Grise, P., & Algozzine, B. Effects of test modifications on minimum competency test performance of third grade learning disabled students (Research Report No. 102). December, 1982
- Algozzine, B., Ysseldyke, J. E., & Christenson, S. An analysis of the incidence of special class placement: The masses are burgeoning (Research Report No. 103). December, 1982.
- Marston, D., Tindal, G., & Deno, S. L. Predictive efficiency of direct, repeated measurement: An analysis of cost and accuracy in classification (Research Report No. 104). December, 1982.
- Wesson, C., Deno, S., Mirkin, P., Sevcik, B., Skiba, R., King, R., Tindal, G., & Maruyama, G. Teaching structure and student achievement effects of curriculum-based measurement: A causal (structural) analysis (Research Report No. 105). December, 1982.
- Mirkin, P. K., Fuchs, L. S., & Deno, S. L. (Eds.). Considerations for designing a continuous evaluation system: An integrative review (Monograph No. 20). December, 1982.
- Marston, D., & Deno, S. L. Implementation of direct and repeated measurement in the school setting (Research Report No. 106). December, 1982.
- Deno, S. L., King, R., Skiba, R., Sevcik, B., & Wesson, C. The structure of instruction rating scale (SIRS): Development and technical characteristics (Research Report No. 107). January, 1983.
- Thurlow, M. L., Ysseldyke, J. E., & Casey, A. Criteria for identifying LD students: Definitional problems exemplified (Research Report No. 108). January, 1983.