Teachers' Beliefs About LD Students.


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A national sample of 127 elementary and secondary teachers of learning disabled (LD) students completed surveys on the characteristics of LD students and the instructional procedures that work with them. Responses revealed extreme variability in the teachers' beliefs about LD students and effective instructional approaches. Further, few differences were found in the beliefs of teachers with 1- to 2-years of special education teaching experience as compared to beliefs of teachers with 10 or more years of special education teaching experience. Responses further indicated a lack of confidence in the teachers' contributions to LD students.

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University of Minnesota

Research Report No. 66

TEACHERS' BELIEFS ABOUT LD STUDENTS

Martha L. Thurlow and James E. Ysseldyke

Institute for Research on Learning Disabilities
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Martha L. Thurlow and James E. Ysseldyke
Institute for Research on Learning Disabilities
University of Minnesota

January, 1982
Abstract

A national sample of 127 LD teachers provided information on the characteristics of LD students and the instructional procedures that work with them. Extreme variability was found in the teachers' beliefs about LD students and approaches to instruction for them. Further, few differences were found in the beliefs of teachers with one to two years of special education teaching experience as compared to beliefs of teachers with 10 or more years of special education teaching experience. The issue of the concordance between the teachers' beliefs and reality is discussed.
Teachers' Beliefs About LD Students

The category of students labeled as "learning disabled" has created considerable controversy among educators. Definitional issues have been at the forefront of the controversy, followed closely by arguments about how best to teach LD students. Although on more than one occasion the government has provided definitions to be used, the confusion has not been dispelled. Even with the most recent definition of LD (Federal Register, 1977), researchers (Ysseldyke, Algozzine, Shinn, & McGue, 1979) have demonstrated that psychometric differences of practical utility do not exist between LD and non-LD students. Yet it is argued that "true" learning disabled students do exist. Similarly, a myriad of instructional approaches have been designed and/or used to meet the special instructional needs of LD students. One approach espoused by many as especially beneficial to LD students was that of modality training, in which instructional methods and materials are adapted to the modality (visual, auditory, or tactile) strengths of the student (cf. deHirsch, Jansky, & Langford, 1966; Lerner, 1971; Wepman, 1967). Other approaches also have been promoted as the answer to the question of how to teach learning disabled students.

Much has been written about LD children, their characteristics, and their instructional needs. These range from "sophisticated" books and educational journal articles to articles in "grocery-store" magazines. The information presented varies greatly across sources and even within them. Teachers trained to work with LD students generally are exposed to all of these sources, but supposedly, they rely on the best of them during their training and teaching.
Teachers, of course, are the major force in the education of LD students. It is important to document the nature of their beliefs about these students since their beliefs, to a large extent, direct the services that these students receive in school. In a survey of regular education teachers, Ysseldyke, Pianta, Christenson, Wang, and Algozzine (1982) found that teachers who had referred a student for psychoeducational evaluation most often believed that the causes of the student's problems were within the child or the child's home. Further, the instructional interventions these teachers used before resorting to referral involved changes in materials or the physical setting of the child. However, regular education teachers rarely are trained specifically to meet the needs of special education students.

To get a truer picture of current beliefs and instructional practices as they relate to the learning disabled student, it is appropriate to go to those who have been trained to deal with special education students. The present study did just that. A sophisticated pool of LD teachers, members of a professional group concerned with the education of LD students, was surveyed regarding their beliefs about LD students and what works best in teaching them. In addition to a descriptive summary of the responses, analyses were undertaken to compare the responses of more experienced teachers with those of less experienced teachers. These latter analyses were conducted to obtain information related to the finding of Greener and Thurlow (1982) that regular education teachers believe they are adequately prepared to deal with LD students in their classrooms, regardless of the amount of teaching experience they have had.
Method

Subjects

Subjects were 127 LD teachers from 36 states, the District of Columbia, and Canada. The distribution of subjects by states and other locations is presented in Table 1. These subjects were ones who responded to a survey sent to 400 members of the Council for Exceptional Children (CEC) Division for Children with Learning Disabilities (DCLD). The 31.8% response rate seemed to be artificially low due to the fact that not all DCLD 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, it is unlikely that this always occurred.

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Insert Table 1 about here

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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 teacher survey was developed to investigate LD teachers' beliefs about learning disabled students and instructional interventions that are effective with them (see Appendix A). Six free response items asked...
subjects to describe (a) major characteristics of LD students, (b) major reasons children become LD, (c) information most useful in determining level and amount of service needed by LD students, (d) what works best for teaching reading to LD students, (e) what works best for teaching mathematics to LD students, and (f) what works best for teaching written language to LD students. For each response to these items, subjects were instructed to indicate the major source of their information (experience, books and journals, training, or other). The survey also presented seven statements about LD students and asked subjects to indicate their agreement with each of them on a four-point scale from "strongly agree" to "strongly disagree." In addition, subjects were asked to indicate the extent to which 15 student characteristics were a problem in working with LD youngsters, using a four-point scale from "very significant problem" to "not a problem." Finally, the survey asked subjects to provide information about their backgrounds, the programs in which they were teaching, the children served, and their school district criterion for classification as LD.

Procedure

In January 1981, surveys and stamped return envelopes were sent to 200 members of DCLD. Two months later, an additional 200 DCLD 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

Background Information

Subjects provided information about their backgrounds and the students they were teaching. The highest degree held was listed as a bachelors degree by 38 (29.9%) respondents, a masters degree by 73 (57.5%), and a
specialist degree by 5 (3.9%); 11 (8.7%) did not answer this item. The number of years of teaching experience with regular students ranged from 0 to 22 ($\bar{X} = 3.6$); 35 (27.6%) had never taught regular education. The number of years teaching special education students ranged from 0 to 19 ($\bar{X} = 6.1$); only one (0.8%) subject was in the first year of teaching special education students.

The type of students currently being taught was characterized as LD by 83 (65.4%) respondents, ED by 1 (0.8%) respondent, other by 3 (2.4%), and as 2 or more types by 40 (31.5%) respondents. The approximate number of children served each day was identified as 8 or less by 8 (6.3%) subjects, 9-15 by 35 (27.6%) subjects, and as over 15 by 83 (65.4%) subjects; one person did not respond. The type of program in which the subjects were teaching was characterized as special class by 23 (18.1%) subjects, resource room by 74 (58.3%), other by 17 (13.4%), and as a combination of programs by 13 (10.2%). Included among the "other" programs were itinerant, team teaching, consultant, and diagnostic.

**Characteristics of LD Students**

Subjects gave from 1 to 5 responses when asked to list the major characteristics of learning disabled students. The majority (107; 84.2%) provided three characteristics (3 spaces were provided for responses). A total of 367 characteristics was listed by the 127 subjects. These were categorized into 12 areas, as shown in Table 2. Examples of the responses included within each characteristic area are given in Appendix B. No single area was mentioned by subjects with much more frequency than any other. Four areas only were included by over 10% of the subjects: processing/memory difficulties, attentional difficulties, poor academic
achievement, and some type of discrepancy.

Table 3 presents a breakdown of the percentages of characteristics listed by less experienced (1-2 yrs) and more experienced (> 10 yrs) teachers. Most percentages were very similar for the two groups; none of the differences was statistically significant.

When subjects indicated the major source of their information about the characteristics of LD students they frequently noted more than one source. Overwhelmingly, the source indicated most often was experience (57.0%), followed nearly equally by training (22.8%) and books and journals (18.3%). Only 11 responses (2.0%) were "other" sources or no answer; included in the "other" category were state guidelines, meetings, parent input, etc. The percentages of the sources cited by the less experienced and more experienced teachers were similar except for training, where less experienced teachers noted this source with somewhat greater frequency (22.4%) than did more experienced teachers (15.8%).

Reasons Children Become LD

Subjects gave from 0 to 3 responses when asked to list the major reasons children become LD students. The majority (89; 70.1%) again provided three responses. A total of 326 reasons was listed by the 121 subjects responding to this item. These are categorized
the eight areas presented in Table 4 (see Appendix B for examples of responses within each area). One reason area, Medical/hereditary, was listed with much greater frequency than others. Three other reason areas were included by more than 10% of the subjects: student inability, home/cultural environment, and a failure on the part of the school.

Table 4 presents the percentages for less experienced and more experienced teachers. The more experienced teachers less often gave Home/Cultural Environment reasons and more often gave School Failure reasons than did the less experienced teachers; however, these differences (and all others) were not statistically significant.

The major source of information about the reasons for LD indicated by subjects again was mainly experience (46.6%), followed almost equally by books and journals (26.0%) and training (25.5); 9 responses (1.9%) were "other" sources (testing, own hypotheses) or no answers. Similar percentages were found for each source for the less experienced and more experienced teachers.

Useful Information

Subjects gave from 0 to 5 responses when asked to indicate the information most useful in determining the level and amount of service needed by LD students; most (98; 77.2%) provided the three responses for
which there were spaces. A total of 349 types of information was listed by the 125 subjects. These were categorized into the 11 areas presented in Table 6. Examples of the responses in each information type are provided in Appendix B. The most frequently mentioned information was formal tests. This was the only type of information mentioned by greater than 10% of the subjects as being useful for determining the level and amount of services needed by LD students. It is interesting to note that while the most frequently listed reason for learning disabilities was Medical/hereditary (see Table 4), only 0.8% of the responses suggested that medical data would provide useful information for serving LD students.

The responses of both the less experienced and more experienced teachers reflected the emphasis given to formal tests (see Table 7). In contrast, the less experienced teachers more often listed observational information and information derived from working with the child as useful than did the more experienced teachers; the differences in these percentages were statistically significant (Observation: \( z = 1.96 \); working with child: \( z = 1.96 \)).

As in their responses to other items, subjects indicated that the major source of their information was experience (67.0%), followed by training (21.7%), then books and journals (8.3%); 14 responses
(3.0%) were "other" sources or no answers. The percentages of times experience was cited as the source by less experienced and more experienced teachers were similar. However, books and journals were cited more often by the more experienced teachers than the less experienced teachers (13.0% vs 8.0%) while the reverse was the case for training (14.0% vs 31.5%).

Teaching Reading to LD Students

Subjects gave from 1 to 4 responses when asked to specify what works best for teaching reading to LD students; most (94; 74.0%) provided three responses. A total of 341 responses were given by the 127 subjects. These responses were categorized into 11 areas (see Table 8). Appendix B provides examples of responses within each category. Specific programs or approaches were listed most frequently as "working" when teaching reading to LD students. No other categories of responses were listed by more than 10% of the subjects.

| Insert Table 8 about here |

Table 9 presents responses of less experienced and more experienced teachers. As is evident in the table, the percentages for each category were similar; no statistically significant differences emerged.

| Insert Table 9 about here |

Experience was cited most often (63.5%) as the major source of information about what works best for teaching reading to LD students. Training (23.5%) was cited next most often, followed at a much lower
level of frequency by books and journals (9.5%) and "other" (unspecified) sources or no answers (3.5%). Less experienced and more experienced teachers cited each source with similar percentages; the largest difference was evident for the training source (26.2% vs 16.8%, respectively, for less experienced and more experienced teachers).

Teaching Mathematics to LD Students

Subjects gave from 0 to 6 responses when indicating what works best for teaching mathematics to LD students. Three responses were provided by most of the 126 respondents (87; 69.0%). A total of 337 responses were given by those subjects. These responses were categorized into the 11 areas shown in Table 10. Appendix B gives examples of the responses included within each category. Two types of responses were given with equal frequency: manipulative materials and repetition/drill/practice. A task analytic/structured approach also was mentioned frequently by subjects. It is noteworthy that a specific program/approach was cited as "working" for mathematics with much less frequency than for teaching reading.

Table 10 presents the responses given by less experienced and more experienced teachers. Only the difference between the percentages for Specific Program/Approach was statistically significant (z=2.11). The teachers with more experience listed specific programs or approaches to teaching mathematics with much greater frequency (18.4%) than did teachers with less experience (6.8%).
Experience again was checked most often (63.1%) as the major source of information about what works best for teaching mathematics to LD students. Training (19.3%) was cited next most often, followed by books and journals (11.9%), and "other" (unspecified) sources or no answers (5.7%). Both less experienced and more experienced teachers cited experience as the source of their information with similar frequency. Books and journals were cited more often by less experienced teachers (14.3%) than by more experienced teachers (7.7%), as was training (22.8% vs 14.3%).

Teaching Written Language to LD Students

Subjects gave from 0 to 4 responses when indicating what works best for teaching written language to LD students. Three responses were provided by most (74; 58.3%) of the respondents. A total of 286 responses were given by the subjects. These responses were categorized into eight areas (see Table 12). Appendix B provides examples of the responses included within each category. The category of Structured/Task Analysis Skills Teaching was mentioned most often, followed by a variety of specific programs or approaches, high interest/personal/variety materials, and a modality/sensory approach. All other categories were noted by less than 10% of the respondents.

Insert Table 12 about here

The percentages of responses in each category for the less experienced and more experienced teachers are shown in Table 13. Statistically significant differences were not found between any of the
Experience was cited most often (66.8%) as the major source of information about teaching written language, followed at a much lower level (19.4%) by training. Books and journals (7.1%) and other sources or no answers (6.6%) were cited with relatively low frequencies. Less experienced and more experienced teachers cited experience as the source with equivalent percentages; training was mentioned more often by less experienced teachers (22.1%) than by more experienced teachers (16.4%), as was books and journals (10.5% vs 4.7%).

Beliefs About Learning Disabled Students

Table 14 summarizes the subjects' responses to six statements about LD students. Subjects were nearly equally divided in their agreement (SA or A) and disagreement (SD or D) with two statements, the first on LD students' ability to learn as well as normal students when given appropriate support services, and the second on the existence of behavior problems in LD students. On only one of the statements did the majority of subjects indicate disagreement; that statement proposed that information on the student's IQ was useful for teaching. On all other statements, the majority of the subjects were in agreement with the propositions made. Most subjects were in strong agreement with the statement that data collected for eligibility decisions are useful for instructional and programming decisions.
Table 15 presents a breakdown of the responses made by less experienced (1-2 yrs) and more experienced (> 10 yrs) teachers. Ratings of SA and A have been combined in the table, as have ratings of SD and D. Most percentages for the two groups were quite similar; a statistically significant difference emerged only for the statement that LD students have behavior problems (z=2.12). Less experienced teachers more often agreed with this statement (74.1%) than did more experienced teachers (44.4%).

Insert Table 15 about here

Table 16 summarizes the extent to which subjects viewed 15 student characteristics as a problem when working with LD students. It is notable that every characteristic listed was seen as a significant or very significant problem by the majority of subjects. The problems most frequently given a VS or S rating were: distractibility (96.9%), weak auditory memory (95.2%), poor discrimination skills (95.2%), and inadequate self-concept (91.9%). The problems most frequently rated as not a problem or as an insignificant problem in working with LD students were: neurological dysfunctions (29.7%), confusion with directionality (21.9%), fine motor problems (20.8%), and social immaturity (18.7%).

Insert Table 16 about here

A breakdown of the views of less experienced and more experienced teachers on each of the 15 student characteristics is shown in Table
The responses of the two groups of teachers were similar for all characteristics; no statistically significant differences emerged.

Discussion

Teachers of learning disabled students are on the front line when it comes to helping these students overcome, or at least, deal with their disabilities. They work with large numbers of LD students every day. One would think that their insights about LD students and instructional procedures that work with them would provide a clear picture of who these students are and what education for them needs to be to meet their needs. Unfortunately, a clear picture did not emerge in the current survey of the beliefs of teachers of LD students.

The 127 teachers in this sample worked with approximately 1600 students during a typical day, usually within a resource room setting. The teachers were well educated; over 60% had earned degrees beyond the bachelor degree level. Approximately 60% had taught special education for at least five years. Yet, despite the sophisticated level of these teachers, the most consistent finding regarding their beliefs about LD students and approaches to instruction for them was the extreme variability.

Who is the LD Student?

According to their teachers, LD students can be characterized by their processing and memory difficulties, their attentional difficulties and distractibility, their poor academic achievement, and a variety of other characteristics. The characteristic most agreed upon was that of
processing and memory difficulties, yet this characteristic was reported in only 15.5% of the responses. Further, in a list of 15 characteristics, all were seen as a problem in working with LD students. Clearly, these responses confirm the heterogeneous nature of the population of students now labeled as learning disabled.

Although LD students were seen as having numerous and varied disabilities, the reasons for the disabilities were described with greater agreement by their teachers. Not surprisingly (cf. Christenson & Ysseldyke, 1981), most of the reasons given attributed the source of the disability to within-child causes. Specifically, over 35% of the responses reflected medical or hereditary causes and over 23% reflected student inability causes. Yet, 18% of the responses did attribute the disabilities to some kind of failure on the part of the school, usually to inadequate regular education teachers or curricula.

Given the varied characteristics of LD students, it is reasonable to expect that information is needed on each student to determine the nature of services that should be provided to meet the specific needs of the student. Yet, an overwhelming 41% of the responses indicated that formal tests would provide the information that would be useful for providing services to LD students.

How Should the LD Student Be Taught?

From the responses of their teachers, one might conclude either that almost anything works in teaching LD students or that nothing works. Regardless of subject area, the use of a specific program or approach was high on the list of "what works." This category represented numerous commercially published programs, books, etc. One suspects that teachers
rely heavily upon the materials available to them in their schools. The variety of materials within this category, and the large number of other categories listed by teachers, further suggest that teachers are using almost anything they can find, and that there is little agreement on what works in teaching LD students. Nearly all responses reflected techniques considered important in regular education classes. The one exception, perhaps, were responses focusing on the need for a modality approach, either the use of a multimodality approach or an approach emphasizing teaching to the student’s strong modality. This approach was emphasized most for teaching written language (16.1%) and least for teaching mathematics (2.4%).

Are Teachers’ Beliefs Influenced by their Experiences?

Teachers, regardless of their actual number of years of teaching experience attributed their knowledge regarding the characteristics of LD students and what works in teaching them to their experience. This finding is consistent with the conclusions of sociological studies of the teaching profession (cf. Lortie, 1975), where teachers have attributed their teaching abilities to trial and error learning in the classroom. One might expect that if experience does in fact underlie teachers’ knowledge and teaching abilities, the beliefs of more experienced and less experienced teachers would differ. In general, however, this was not the case. Very few differences emerged in the beliefs of teachers with 1 to 2 years of experience as compared to those of teachers with 10 years or more of experience. No differences were found in the beliefs of the two groups of teachers regarding the major characteristics of LD students, the reasons for learning disabilities, and what works
best for teaching reading and written language. In listing information useful for providing services to LD students, less experienced teachers significantly more often saw observations and working with the child as giving information useful for providing services to LD students than did more experienced teachers. Specific programs/approaches were listed as working for math significantly more often by more experienced teachers than by less experienced teachers.

Conclusion

The crucial issue becomes the extent to which teachers' beliefs are in accord with reality, or at least with evidence provided by research. Unfortunately, few attempts have been made to document the validity of teachers' beliefs or techniques. One notable exception was the study of the modality model by Arter and Jenkins (1977), in which they found little evidence to support the use of modality instructional matching in beginning reading. A survey of teacher training textbooks, as well as reports prepared by authorities in the field of learning disabilities (cf. Clements, 1966) reveals that nearly all the responses given by teachers in the present survey appear in print, often documented by research. The next issue, then, becomes the quality of the research findings. In an initial attempt to investigate this issue and its relevance to the current findings, editors of educational and psychological journals are being asked to review some of the teachers' responses in the current survey in terms of the extent to which they are supported by quality research.

Perhaps the most disturbing finding of the current survey was the re-
response of the teachers to the statement, "Given appropriate support services, learning disabled students learn as well as normal students." Despite the sophisticated level of the teachers, and their willingness to list materials or techniques that "work" when teaching LD students, as many disagreed with the statement (42.1%) as agreed with it (43.8%). Considering that these teachers serve approximately 1600 students on a typical day, this lack of confidence in their contribution to learning disabled students indeed is disturbing and emphasizes the need to clarify the current status of methods for identifying and serving LD students, and to develop alternatives where current methods are found to be inadequate.
References


Footnote

Special appreciation is extended to Lisa Boyum and Kaye Storey for their assistance in coding and tabulating the data.
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N=122. Five subjects did not specify their location.
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$^a$Percentages are based on the total number of 367 characteristics listed by the 127 subjects.

$^b$Included in "other" were a variety of responses that were difficult to fit within the established categories (e.g., uniqueness, put out a lot of effort, street-smart, etc.).
Table 3

Major Characteristics of LD Students Listed by Less Experienced and More Experienced Teachers

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<td>Processing/Memory Difficulties</td>
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<td>13.6</td>
</tr>
<tr>
<td>Attentional Difficulties/Distractibility</td>
<td>19.7</td>
<td>14.8</td>
</tr>
<tr>
<td>Poor Academic Achievement</td>
<td>10.5</td>
<td>11.1</td>
</tr>
<tr>
<td>Discrepancy (IQ-Ach; Verb-Perf)</td>
<td>7.9</td>
<td>7.4</td>
</tr>
<tr>
<td>Perceptual/Motor Difficulties</td>
<td>13.2</td>
<td>21.0</td>
</tr>
<tr>
<td>Organizational Difficulties</td>
<td>6.6</td>
<td>7.4</td>
</tr>
<tr>
<td>Motivational Difficulties</td>
<td>10.5</td>
<td>3.7</td>
</tr>
<tr>
<td>Social/Behavioral Difficulties</td>
<td>6.6</td>
<td>6.2</td>
</tr>
<tr>
<td>Need for Special Programs</td>
<td>1.3</td>
<td>2.5</td>
</tr>
<tr>
<td>Average or Above IQ</td>
<td>2.6</td>
<td>3.7</td>
</tr>
<tr>
<td>Other</td>
<td>5.3</td>
<td>2.5</td>
</tr>
<tr>
<td>Inconsistent Performance</td>
<td>5.3</td>
<td>6.2</td>
</tr>
</tbody>
</table>

<sup>a</sup>Numbers are percentages of the total number of 76 characteristics listed by the 27 teachers with 1-2 years of special education teaching experience.

<sup>b</sup>Numbers are percentages of the total number of 81 characteristics listed by the 27 teachers with 10 years or more of special education teaching experience.
Table 4

Major Reasons Children Become LD Students

<table>
<thead>
<tr>
<th>Reason Area</th>
<th>N</th>
<th>Percent^a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical/Hereditary</td>
<td>110</td>
<td>33.7</td>
</tr>
<tr>
<td>Student Inability</td>
<td>65</td>
<td>19.9</td>
</tr>
<tr>
<td>Home/Cultural Environment</td>
<td>51</td>
<td>15.6</td>
</tr>
<tr>
<td>School Failure</td>
<td>45</td>
<td>13.8</td>
</tr>
<tr>
<td>Developmental Lag</td>
<td>24</td>
<td>7.4</td>
</tr>
<tr>
<td>Unknown</td>
<td>17</td>
<td>5.2</td>
</tr>
<tr>
<td>Function of Diagnosis</td>
<td>10</td>
<td>3.1</td>
</tr>
<tr>
<td>Other^b</td>
<td>4</td>
<td>1.2</td>
</tr>
</tbody>
</table>

^a Percentages are based on the total number of 326 reasons listed by 121 subjects.

^b Included in "other" were not due to environmental deprivation, personality traits, etc.
Table 5
Major Reasons Students Become LD Students Listed by Less Experienced and More Experienced Teachers

<table>
<thead>
<tr>
<th>Reason Area</th>
<th>Less Experienced&lt;sup&gt;a&lt;/sup&gt;</th>
<th>More Experienced&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical/Hereditary</td>
<td>40.0</td>
<td>36.1</td>
</tr>
<tr>
<td>Student Inability</td>
<td>18.5</td>
<td>23.6</td>
</tr>
<tr>
<td>Home/Cultural Environment</td>
<td>15.4</td>
<td>8.3</td>
</tr>
<tr>
<td>School Failure</td>
<td>13.8</td>
<td>18.0</td>
</tr>
<tr>
<td>Developmental Lag</td>
<td>3.1</td>
<td>4.2</td>
</tr>
<tr>
<td>Unknown</td>
<td>4.6</td>
<td>5.6</td>
</tr>
<tr>
<td>Function of Diagnosis</td>
<td>4.6</td>
<td>4.2</td>
</tr>
<tr>
<td>Other</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

<sup>a</sup>Numbers are percentages of the total number of 65 reasons listed by the 27 teachers with 1-2 years of special education teaching experience.

<sup>b</sup>Numbers are percentages of the total number of 72 reasons listed by the 27 teachers with 10 years of more of special education teaching experience.
Table 6

Useful Information in Providing Services to LD Students

<table>
<thead>
<tr>
<th>Type of Information</th>
<th>N</th>
<th>Percenta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal Tests</td>
<td>143</td>
<td>41.0</td>
</tr>
<tr>
<td>Teacher Input</td>
<td>36</td>
<td>10.3</td>
</tr>
<tr>
<td>Observation</td>
<td>34</td>
<td>9.7</td>
</tr>
<tr>
<td>School Records</td>
<td>30</td>
<td>8.6</td>
</tr>
<tr>
<td>Informal Tests</td>
<td>26</td>
<td>7.4</td>
</tr>
<tr>
<td>Otherb</td>
<td>22</td>
<td>6.3</td>
</tr>
<tr>
<td>Working with Child</td>
<td>20</td>
<td>5.7</td>
</tr>
<tr>
<td>Learning Style, Interests</td>
<td>12</td>
<td>3.4</td>
</tr>
<tr>
<td>Other Input</td>
<td>12</td>
<td>3.4</td>
</tr>
<tr>
<td>Parent Input</td>
<td>11</td>
<td>3.2</td>
</tr>
<tr>
<td>Medical Data</td>
<td>3</td>
<td>0.8</td>
</tr>
</tbody>
</table>

aPercentages are based on the total number of 349 types of information listed by 125 subjects.
bIncluded in the "other" category were a variety of responses that were difficult to fit within the established categories (e.g., school curriculum demands, social history, available services, academic progress, etc.).
### Table 7

Useful Information in Providing Services to LD Students Listed by Less Experienced and More Experienced Teachers

<table>
<thead>
<tr>
<th>Type of Information</th>
<th>Less Experienced&lt;sup&gt;a&lt;/sup&gt;</th>
<th>More Experienced&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal Tests</td>
<td>37.7</td>
<td>43.4</td>
</tr>
<tr>
<td>Teacher Input</td>
<td>10.4</td>
<td>11.8</td>
</tr>
<tr>
<td>Observation&lt;sup&gt;c&lt;/sup&gt;</td>
<td>10.4</td>
<td>2.6</td>
</tr>
<tr>
<td>School Records</td>
<td>7.8</td>
<td>7.9</td>
</tr>
<tr>
<td>Informal Tests</td>
<td>10.4</td>
<td>5.3</td>
</tr>
<tr>
<td>Other</td>
<td>7.8</td>
<td>10.5</td>
</tr>
<tr>
<td>Working with Child&lt;sup&gt;c&lt;/sup&gt;</td>
<td>10.4</td>
<td>2.6</td>
</tr>
<tr>
<td>Learning Style, Interests</td>
<td>1.3</td>
<td>6.6</td>
</tr>
<tr>
<td>Other Input</td>
<td>1.3</td>
<td>2.6</td>
</tr>
<tr>
<td>Parent Input</td>
<td>2.6</td>
<td>3.9</td>
</tr>
<tr>
<td>Medical Data</td>
<td>0.0</td>
<td>2.6</td>
</tr>
</tbody>
</table>

<sup>a</sup> Numbers are percentages of the total number of 77 types of information listed by the 27 teachers with 1-2 years of special education teaching experience.

<sup>b</sup> Numbers are percentages of the total number of 76 types of information listed by the 26 teachers with 10 years or more of special education teaching experience.

<sup>c</sup> Difference between two percentages is statistically significant at the .05 level.
Table 8
Teaching Reading to LD Students

<table>
<thead>
<tr>
<th>What Works</th>
<th>N</th>
<th>Percenta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Program/Approach</td>
<td>94</td>
<td>27.6</td>
</tr>
<tr>
<td>Structured/Task Analysis Skills Teaching</td>
<td>33</td>
<td>9.7</td>
</tr>
<tr>
<td>Repetition/Drill/Practice</td>
<td>32</td>
<td>9.4</td>
</tr>
<tr>
<td>High Interest Materials</td>
<td>31</td>
<td>9.1</td>
</tr>
<tr>
<td>Specific Type of Materials</td>
<td>30</td>
<td>8.8</td>
</tr>
<tr>
<td>Individualized/Small Group Instruction</td>
<td>28</td>
<td>8.2</td>
</tr>
<tr>
<td>Multisensory/Multimodality Approach</td>
<td>27</td>
<td>7.9</td>
</tr>
<tr>
<td>Motivation/Reinforcement</td>
<td>26</td>
<td>7.6</td>
</tr>
<tr>
<td>Otherb</td>
<td>18</td>
<td>5.3</td>
</tr>
<tr>
<td>Teach to Strong Modality</td>
<td>14</td>
<td>4.1</td>
</tr>
<tr>
<td>Variety of Materials</td>
<td>8</td>
<td>2.3</td>
</tr>
</tbody>
</table>

aPercentages are based on the total number of 341 responses given by 127 subjects.

bIncluded in the "other" category were a variety of responses that were difficult to fit within the established categories (e.g., practical application, teacher-directed lessons, knowledge of many approaches, I wish I could find such an animal).
### Table 9

Less Experienced and More Experienced Teachers' Views of What Works in Teaching Reading to LD Students

<table>
<thead>
<tr>
<th>What Works</th>
<th>Less Experienced</th>
<th>More Experienced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Program/Approach</td>
<td>27.8</td>
<td>25.3</td>
</tr>
<tr>
<td>Structured/Task Analysis Skills Teaching</td>
<td>6.9</td>
<td>13.3</td>
</tr>
<tr>
<td>Repetition/Drill/Practice</td>
<td>12.5</td>
<td>14.7</td>
</tr>
<tr>
<td>High Interest Materials</td>
<td>15.3</td>
<td>8.0</td>
</tr>
<tr>
<td>Specific Type of Materials</td>
<td>6.9</td>
<td>8.0</td>
</tr>
<tr>
<td>Individualized/Small Group Instruction</td>
<td>6.9</td>
<td>6.7</td>
</tr>
<tr>
<td>Multisensory/Multimodality Approach</td>
<td>8.3</td>
<td>5.3</td>
</tr>
<tr>
<td>Motivation/Reinforcement</td>
<td>4.2</td>
<td>5.3</td>
</tr>
<tr>
<td>Other</td>
<td>4.2</td>
<td>6.7</td>
</tr>
<tr>
<td>Teach to Strong Modality</td>
<td>4.2</td>
<td>4.0</td>
</tr>
<tr>
<td>Variety of Materials</td>
<td>2.8</td>
<td>2.7</td>
</tr>
</tbody>
</table>

*Numbers are percentages of the total number of 72 responses of the 27 teachers with 1-2 years of special education teaching experience.*

*Numbers are percentages of the total number of 75 responses of the 27 teachers with 10 years of more of special education teaching experience.*
Table 10
Teaching Mathematics to LD Students

<table>
<thead>
<tr>
<th>What Works</th>
<th>N</th>
<th>Percenta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manipulative Materials</td>
<td>55</td>
<td>16.3</td>
</tr>
<tr>
<td>Repetition/Drill/Practice</td>
<td>55</td>
<td>16.3</td>
</tr>
<tr>
<td>Structured/Task Analysis Skills Teaching</td>
<td>44</td>
<td>13.0</td>
</tr>
<tr>
<td>Otherb</td>
<td>34</td>
<td>10.1</td>
</tr>
<tr>
<td>Specific Type of Materials</td>
<td>32</td>
<td>9.5</td>
</tr>
<tr>
<td>Specific Program/Approach</td>
<td>31</td>
<td>9.2</td>
</tr>
<tr>
<td>Practical Applications</td>
<td>30</td>
<td>8.9</td>
</tr>
<tr>
<td>Motivation/Reinforcement</td>
<td>20</td>
<td>5.9</td>
</tr>
<tr>
<td>Individualized/Small Group Instruction</td>
<td>19</td>
<td>5.6</td>
</tr>
<tr>
<td>High Interest/Variety Materials</td>
<td>9</td>
<td>2.7</td>
</tr>
<tr>
<td>Modality/Sensory Approach</td>
<td>8</td>
<td>2.4</td>
</tr>
</tbody>
</table>

aPercentages are based on the total number of 337 responses given by 126 subjects.

bIncluded in the "other" category were a variety of responses that were difficult to fit within the established categories (e.g., give student enough time, estimate reasonable answers first, support from home, I wish I knew).
Table 11
Less Experienced and More Experienced Teachers' Views of What Works in Teaching Mathematics to LD Students

<table>
<thead>
<tr>
<th>What Works</th>
<th>Less Experienced&lt;sup&gt;a&lt;/sup&gt;</th>
<th>More Experienced&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manipulative Materials</td>
<td>16.4</td>
<td>15.8</td>
</tr>
<tr>
<td>Repetition/Drill/Practice</td>
<td>21.9</td>
<td>17.1</td>
</tr>
<tr>
<td>Structured/Task Analysis Skills Teaching</td>
<td>12.3</td>
<td>15.8</td>
</tr>
<tr>
<td>Other</td>
<td>6.8</td>
<td>6.6</td>
</tr>
<tr>
<td>Specific Type of Materials</td>
<td>5.5</td>
<td>3.9</td>
</tr>
<tr>
<td>Specific Program/Approach&lt;sup&gt;c&lt;/sup&gt;</td>
<td>6.8</td>
<td>18.4</td>
</tr>
<tr>
<td>Practical Applications</td>
<td>9.6</td>
<td>3.9</td>
</tr>
<tr>
<td>Motivation/Reinforcement</td>
<td>6.8</td>
<td>5.3</td>
</tr>
<tr>
<td>Individualized/Small Group Instruction</td>
<td>5.5</td>
<td>6.6</td>
</tr>
<tr>
<td>High Interest/ Variety Materials</td>
<td>4.1</td>
<td>3.9</td>
</tr>
<tr>
<td>Modality/Sensory Approach</td>
<td>4.1</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Numbers are percentages of the total number of 73 responses of the 27 teachers with 1-2 years of special education teaching experience.

<sup>a</sup> Numbers are percentages of the total number of 76 responses of the 27 teachers with 10 years or more of special education teaching experience.

<sup>c</sup> Difference between two percentages is statistically significant at the .05 level.
<table>
<thead>
<tr>
<th>What Works</th>
<th>N</th>
<th>Percent^a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structured/Task Analysis Skills Teaching</td>
<td>63</td>
<td>22.0</td>
</tr>
<tr>
<td>Specific Program/Approach</td>
<td>53</td>
<td>18.5</td>
</tr>
<tr>
<td>High Interest/Personal/Variety Materials</td>
<td>53</td>
<td>18.5</td>
</tr>
<tr>
<td>Modality/Sensory Approach</td>
<td>45</td>
<td>16.1</td>
</tr>
<tr>
<td>Motivation/Reinforcement</td>
<td>26</td>
<td>9.1</td>
</tr>
<tr>
<td>Practice/Correcting Errors</td>
<td>24</td>
<td>8.4</td>
</tr>
<tr>
<td>Other^b</td>
<td>14</td>
<td>4.9</td>
</tr>
<tr>
<td>Individualized/Small Group Instruction</td>
<td>7</td>
<td>2.4</td>
</tr>
</tbody>
</table>

^a Percentages are based on the total number of 286 responses given by 123 subjects.

^b Included in the "other" category were a variety of responses that were difficult to fit within the established categories (e.g., field trips, organizational, knowledge of approaches, I wish I knew).
Table 13

Less Experienced and More Experienced Teachers' Views of What Works in Teaching Written Language to LD Students

<table>
<thead>
<tr>
<th>What Works</th>
<th>Less Experienced&lt;sup&gt;a&lt;/sup&gt;</th>
<th>More Experienced&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structured/Task Analysis Skills Teaching</td>
<td>13.8</td>
<td>18.9</td>
</tr>
<tr>
<td>Specific Program/Approach</td>
<td>38.5</td>
<td>36.5</td>
</tr>
<tr>
<td>High Interest/Personal/ Variety Materials</td>
<td>13.8</td>
<td>10.8</td>
</tr>
<tr>
<td>Modality/Sensory Approach</td>
<td>3.1</td>
<td>8.1</td>
</tr>
<tr>
<td>Motivation/Reinforcement</td>
<td>6.2</td>
<td>5.4</td>
</tr>
<tr>
<td>Practice/Correcting Errors</td>
<td>18.5</td>
<td>10.8</td>
</tr>
<tr>
<td>Other</td>
<td>4.6</td>
<td>5.4</td>
</tr>
<tr>
<td>Individualized/Small Group Instruction</td>
<td>1.5</td>
<td>4.0</td>
</tr>
</tbody>
</table>

<sup>a</sup> Numbers are percentages of the total number of 65 responses of the 26 teachers with 1-2 years of special education teaching experience.

<sup>b</sup> Numbers are percentages of the total number of 74 responses of the 27 teachers with 10 years or more of special education teaching experience.
Table 14
Percentages of Subjects Indicating Agreement or Disagreement with Six Statements about Learning Disabled Students

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD students learn normally with support services</td>
<td>11.6</td>
<td>43.8</td>
<td>42.1</td>
<td>2.5</td>
</tr>
<tr>
<td>Eligibility data useful for instruction</td>
<td>56.3</td>
<td>38.9</td>
<td>4.8</td>
<td>0.0</td>
</tr>
<tr>
<td>LD students have perceptual problems</td>
<td>25.6</td>
<td>56.8</td>
<td>17.6</td>
<td>0.0</td>
</tr>
<tr>
<td>LD students have language problems</td>
<td>30.3</td>
<td>58.2</td>
<td>9.8</td>
<td>0.8</td>
</tr>
<tr>
<td>LD students have behavior problems</td>
<td>10.5</td>
<td>39.5</td>
<td>44.4</td>
<td>5.6</td>
</tr>
<tr>
<td>LD students have modality strengths and weaknesses</td>
<td>23.0</td>
<td>56.3</td>
<td>18.2</td>
<td>2.4</td>
</tr>
<tr>
<td>IQ data useful for instruction</td>
<td>7.9</td>
<td>29.4</td>
<td>46.0</td>
<td>16.7</td>
</tr>
</tbody>
</table>

aSee Appendix A for complete statements.
Table 15

Percentages of Less Experienced and More Experienced Teachers Indicating Agreement or Disagreement with Seven Statements About Learning Disabled Students

| Statement | 
| --- | --- | --- | --- | --- | --- | --- |
| | 1-2 yrs | >10 yrs | 1-2 yrs | >10 yrs |
| LD students learn normally with support services | 65.4 | 48.1 | 34.6 | 51.8 |
| Eligibility data useful for instruction | 96.3 | 92.6 | 3.7 | 7.4 |
| LD students have perceptual problems | 88.9 | 85.2 | 11.1 | 14.8 |
| LD students have language problems | 92.3 | 88.9 | 7.7 | 11.1 |
| LD students have behavior problems | 74.1 | 44.4 | 25.9 | 55.6 |
| LD students have modality strengths and weaknesses | 92.6 | 74.1 | 7.4 | 25.9 |
| IQ data useful for instruction | 37.0 | 34.6 | 63.0 | 65.4 |

aResponses were divided into those from teachers with 1-2 years of special education teaching experience (less experienced) and those with 10 years or more of special education teaching experience (more experience).

bSee Appendix A for complete statements.

cRatings of Strongly Agree and Agree were combined.

dRatings of Strongly Disagree and Disagree were combined.

eDifferences between two percentages is statistically significant at the .05 level.
Table 16

Percentages of Subjects Rating Extent to Which 15 Student Characteristics are a Problem in Working with LD Students<sup>a</sup>

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>VS</th>
<th>S</th>
<th>I</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weak auditory memory</td>
<td>43.2</td>
<td>52.0</td>
<td>4.8</td>
<td>0.0</td>
</tr>
<tr>
<td>Confusion with directionality</td>
<td>15.4</td>
<td>62.6</td>
<td>21.1</td>
<td>0.8</td>
</tr>
<tr>
<td>Fine motor problems</td>
<td>13.6</td>
<td>65.6</td>
<td>20.8</td>
<td>0.0</td>
</tr>
<tr>
<td>Poor discrimination skills</td>
<td>31.0</td>
<td>62.7</td>
<td>6.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>23.8</td>
<td>62.7</td>
<td>11.9</td>
<td>1.6</td>
</tr>
<tr>
<td>Distractibility</td>
<td>45.7</td>
<td>51.2</td>
<td>2.4</td>
<td>0.8</td>
</tr>
<tr>
<td>Lack of motivation</td>
<td>44.4</td>
<td>43.6</td>
<td>9.5</td>
<td>2.4</td>
</tr>
<tr>
<td>Neurological dysfunction</td>
<td>14.0</td>
<td>56.2</td>
<td>26.4</td>
<td>3.3</td>
</tr>
<tr>
<td>Insecurity</td>
<td>20.2</td>
<td>67.2</td>
<td>10.1</td>
<td>2.5</td>
</tr>
<tr>
<td>Anxiety with regard to school</td>
<td>29.8</td>
<td>57.2</td>
<td>10.5</td>
<td>2.4</td>
</tr>
<tr>
<td>Inadequate self concept</td>
<td>49.2</td>
<td>42.7</td>
<td>5.6</td>
<td>2.4</td>
</tr>
<tr>
<td>Poor interpersonal relationships</td>
<td>25.4</td>
<td>64.0</td>
<td>8.8</td>
<td>1.8</td>
</tr>
<tr>
<td>Social immaturity</td>
<td>14.6</td>
<td>66.7</td>
<td>17.9</td>
<td>0.8</td>
</tr>
<tr>
<td>Poor judgment</td>
<td>20.3</td>
<td>64.2</td>
<td>13.8</td>
<td>1.6</td>
</tr>
<tr>
<td>Inability to learn when given conventional instructions</td>
<td>52.0</td>
<td>34.1</td>
<td>12.2</td>
<td>1.6</td>
</tr>
</tbody>
</table>

<sup>a</sup>Subjects ratings were on a scale of four levels: VS = very significant problem, S = significant problem, I = insignificant problem, and N = not a problem.
Table 17

Percentages of Less Experienced and More Experienced Teachers' Rating Extent to Which 15 Student Characteristics are a Problem in Working with LD Students

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Significant&lt;sup&gt;b&lt;/sup&gt; 1-2 yrs</th>
<th>Significant&lt;sup&gt;b&lt;/sup&gt; &gt;10 yrs</th>
<th>Insignificant&lt;sup&gt;c&lt;/sup&gt; 1-2 yrs</th>
<th>Insignificant&lt;sup&gt;c&lt;/sup&gt; &gt;10 yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weak auditory memory</td>
<td>100.0</td>
<td>96.3</td>
<td>0.0</td>
<td>3.7</td>
</tr>
<tr>
<td>Confusion with directionality</td>
<td>77.8</td>
<td>80.8</td>
<td>22.2</td>
<td>19.2</td>
</tr>
<tr>
<td>Fine motor problems</td>
<td>77.8</td>
<td>88.5</td>
<td>22.2</td>
<td>11.5</td>
</tr>
<tr>
<td>Poor discrimination skills</td>
<td>92.6</td>
<td>96.3</td>
<td>7.4</td>
<td>3.7</td>
</tr>
<tr>
<td>Hyperactivity</td>
<td>84.6</td>
<td>96.3</td>
<td>15.4</td>
<td>3.7</td>
</tr>
<tr>
<td>Distractibility</td>
<td>92.6</td>
<td>100.0</td>
<td>7.4</td>
<td>0.0</td>
</tr>
<tr>
<td>Lack of Motivation</td>
<td>81.5</td>
<td>88.9</td>
<td>18.5</td>
<td>11.1</td>
</tr>
<tr>
<td>Neurological dysfunction</td>
<td>65.4</td>
<td>80.8</td>
<td>34.6</td>
<td>19.2</td>
</tr>
<tr>
<td>Insecurity</td>
<td>84.6</td>
<td>80.8</td>
<td>15.4</td>
<td>19.2</td>
</tr>
<tr>
<td>Anxiety with regard to school</td>
<td>88.5</td>
<td>84.6</td>
<td>11.5</td>
<td>15.4</td>
</tr>
<tr>
<td>Inadequate self-concept</td>
<td>92.3</td>
<td>92.3</td>
<td>7.7</td>
<td>7.7</td>
</tr>
<tr>
<td>Poor interpersonal relationships</td>
<td>76.0</td>
<td>88.5</td>
<td>24.0</td>
<td>11.5</td>
</tr>
<tr>
<td>Social immaturity</td>
<td>72.0</td>
<td>84.6</td>
<td>28.0</td>
<td>15.4</td>
</tr>
<tr>
<td>Poor judgment</td>
<td>80.0</td>
<td>88.5</td>
<td>20.0</td>
<td>11.5</td>
</tr>
<tr>
<td>Inability to learn when given</td>
<td>84.6</td>
<td>84.6</td>
<td>15.4</td>
<td>15.4</td>
</tr>
</tbody>
</table>

<sup>a</sup>Responses were divided into those from teachers with 1-2 years of special education teaching experience (less experienced) and those with 10 years or more of special education teaching experience (more experienced).

<sup>b</sup>Ratings of Very Significant and Significant were combined.

<sup>c</sup>Ratings of Insignificant and Not a Problem were combined.
### State in which you teach
- Circle one: Rural
- Circle one: Urban
- Circle one: Suburban

Circle one: Elementary
- Circle one: Middle
- Circle one: Secondary

Circle one: Male
- Circle one: Female

---

**TEACHER SURVEY**

A. For the following items, please write in your responses, then indicate whether the major source of your information was your own experience (Exp), books and journals (B&J), training (Trn), or some other source (Oth). If "other," please specify the source.

<table>
<thead>
<tr>
<th>Question</th>
<th>Source Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What are the major characteristics of learning disabled students?</td>
<td>Exp B&amp;J Trn Oth</td>
</tr>
<tr>
<td>a.</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td></td>
</tr>
<tr>
<td>2. What are the major reasons children become learning disabled students?</td>
<td>Exp B&amp;J Trn Oth</td>
</tr>
<tr>
<td>a.</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td></td>
</tr>
<tr>
<td>3. What information is most useful in determining the level and amount of service needed by learning disabled students?</td>
<td>Exp B&amp;J Trn Oth</td>
</tr>
<tr>
<td>a.</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td></td>
</tr>
<tr>
<td>5. What works best for teaching mathematics to students who are learning disabled?</td>
<td>Exp B&amp;J Trn Oth</td>
</tr>
<tr>
<td>a.</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td></td>
</tr>
</tbody>
</table>
B. For each of the following statements, indicate whether you Strongly Agree (SA), Agree (A), Disagree (D), or Strongly Disagree (SD). Circle one response on each line.

Given appropriate support services, learning disabled students learn as well as normal students. 
SA A. D SD

Assessment data collected to determine a student's eligibility for special education services also can provide useful information for developing instructional techniques and programs. 
SA A D SD

In most cases, learning disabled students have perceptual problems. 
SA A D SD

In most cases, learning disabled students have language problems. 
SA A D SD

In most cases, learning disabled students have behavior problems. 
SA A D SD

In most cases, learning disabled students have a weakness in one modality and a strength in another. 
SA A D SD

It is useful to know the student's IQ to decide upon teaching techniques. 
SA A D SD

C. For each of the following statements, indicate the extent to which it is a problem in working with learning disabled youngsters by circling either VS (very significant problem), S (significant problem), I insig-nificant problem), or N (not a problem).

Student has: 

Weak auditory memory VS S I N Insecurity. VS S I N
Confusion with directionality VS S I N Anxiety with regard to school VS S I N
Fine motor problems VS S I N Inadequate self concept VS S I N
Poor discrimination skills VS S I N Poor interpersonal relationships VS S I N
Hyperactivity VS S I N Social immaturity VS S I N
Distractibility VS S I N Poor judgment VS S I N
Lack of motivation VS S I N Inability to learn when given conventional instruction VS S I N
Neurological dysfunctions VS S I N

D. How many years have you taught regular students? special education students?

Please provide the following background information:
List the certificates that you hold.
Identify the highest degree you hold.
Which of the following categories best describes the children you are presently teaching?

1. Normal 3. Mentally retarded 5. Other (please specify)
2. Learning Disabled 4. Emotionally disturbed

Approximately how many children do you serve each day?

1. 8 or less 2. 9 - 15
3. over 15

In what type of program do you teach?

1. Special class 2. Resource room 3. Other (please specify)

What is the criterion for a student to be classified as learning disabled in your school district? Do you agree with it?
Examples of Responses Within Categories of Major Characteristics of LD Students

**Processing/Memory Difficulties**
- Information processing difficulties
- Severe processing weakness
- Visual memory deficits
- Auditory memory deficits
- Trouble processing information

**Poor Academic Achievement**
- At lower end of academic achievement
- Poor academic performance
- Significant deficit in one or more academic areas
- Underachiever
- Low achievement scores

**Perceptual/Motor Difficulties**
- Perceptual problems
- Visual and/or auditory perceptual problems
- Eye-hand problems
- Weakness in 1 or more perceptual areas
- Confused directionality and perception

**Motivational Difficulties**
- Unmotivated
- Not easily motivated
- Attitude: not trying
- Lack of motivation
- Lack of confidence

**Need for Special Programs**
- Can't learn with traditional methods
- Require specialized or inventive techniques
- Unable to produce in classroom setting
- Inability to learn by conventional means
- Need for specific teaching strategies to remediate deficits

**Attentional Difficulties/Distractibility**
- Distractable
- Hyper or hypoactive and disinhibited
- Short attention span
- Difficulty of concentration and focus
- Easily distracted

**Discrepancy (IQ-Ach; Verb-Perf)**
- Discrepancy between ability and achievement
- Discrepancy between verbal and performance on IQ test
- Normal IQ, but not performing up to capacity
- Achievement below expectations with no apparent reason

**Organizational Difficulties**
- Disorganized
- Lack of organizational skills
- Lack of internal organization
- Poor organization
- Unorganized

**Social/Behavioral Difficulties**
- Poor social awareness
- Inappropriate peer interaction
- Behavior problems:
- Secondary emotional/behavioral problems

**Average or Above IQ**
- Normal intelligence
- Average or above intelligence
- Normal IQ
Inconsistent Performance

Scattered pattern of ability-knowledge. Something one day and not next.
Skip learners – know some things, can’t learn others.
Uneven development.
Unpredictable – inconsistent performance.
Examples of Responses Within Categories of Reasons Children Become LD Students

Medical/Hereditary

Hereditary/genetic
Brain damage/dysfunction
Physiological
Early childhood illness/accident
Allergies, epilepsy, trauma

Home/Cultural Environment

Home environment lacks stimulation, support
Cultural deficits
Economically and socially deprived
Too much TV
Instability of residence

Developmental Lag

Developmental lag
Maturational lag
Slow maturation
Immaturity
Delayed development

Student Inability

Unable to learn by normal methods
Unable to meet school expectations
Actual deficits in the child
Do not learn
Lack of grasping basics

School Failure

Poor preparation of regular ed. teachers
Poor, inadequate instruction
Inconsistent instruction
High pressure school curriculum
Instruction is not developmental

Unknown

Unknown etiology
Real reasons are unknown
None known for sure
Causes unknown

Function of Diagnosis

Inappropriate, incomplete diagnostic data
Diagnosis as such by psychologists
Deficits not identified at early stage
Evaluations determine they are LD
Examples of Responses Within Categories of Useful Information in Providing Services to LD Students

Formal Tests
- Formal individual testing by psychologist
- Formal assessment
- Norm-referenced testing
- IQ score and test data
- Processing tests

Observation
- Observation
  - Diagnostic observation
  - Personal observation
  - Watching the child working
  - Observation at various places

Informal Tests
- Informal testing
- Informal assessment
- Informal diagnosis
- Informal inventories
- Teacher's evaluative measurements

Learning Style/Interests
- Attitude and motivation of student
- Ability to communicate
- Learning styles/requirements
- Document child's approach to learning

Teacher Input
- Information supplied by teacher
  - Talk to present teachers of student
  - Teacher perceptions
  - Comments from previous teachers
  - Classroom teachers' perceptions of child

School Records
- Records
  - Past and present school performance
  - History of child's education
  - Background check - cumulative records
  - School performance records

Working with Child
- Actually working with student
  - Personal contact
  - First few sessions with child
  - Teacher interviewing child
  - Questioning/interviewing child

Other Input
- Input from counselors
- Confidential reports from other sources
- Information shared by EA and R committee
- Reports from any agencies servicing student

Parent Input
- Parent input
  - Conferences with parents
  - Parent perceptions

Parental Data
- Medical reports
- Medical testing
- Professional evaluation of vision, medical, etc.
Examples of Responses Within Categories of
What Works in Teaching Reading to LD Students

Specific Program/Approach
- Distar
- SRA reading series
- Lippincott Beginnings program
- Sight-word approach (Dolch)
- Direct instruction series (Distar, Corrective Reading)

Repetition/Drill/Practice
- Repetition and practice
- Much drill
- Enough practice for overlearning
- Constant relearning
- Read and read and read

Specific Type of Materials
- Uncluttered reading materials
- Language master
- Vocabulary development materials
- Tape recorder
- Flash cards

Multisensory/Multimodality Approach
- Multisensory approach
- Multimodality approach
- Combined multisensory approach
- Teaching through more than one modality
- Tactile along with other senses

Teach to Strong Modality
- Teaching to primary learning modality
- Make use of student's best functioning modality
- Cassettes for auditory learner
- Determine strong modality for learning

Structured/Task Analysis Skills Training
- Highly structured approach
- Firm structure, organization
- Tightly sequenced approach
- Comprehensive task analysis
- Break down skills

High Interest Materials
- High interest materials
- High interest books
- Pleasure reading
- Personal stories
- Work in interest level

Individualized/Small Group Instruction
- Small group instruction
- Individual or very small group instruction
- One-to-one small group setting
- 1:1 help
- No groups

Motivation/Reinforcement
- Reinforcement with rewards
- Rewards and incentives
- Motivational incentives
- Praise the positive
- Friendly encouragement

Variety of Materials
- Variety of materials
- Not only one type of material
- Variety of things - tapes, skills book
Examples of Responses Within Categories of What Works in Teaching Mathematics to LD Students

**Manipulative Materials**
- Manipulatives
  - Pennies and dimes and other manipulatives
  - Handling of objects, shapes
  - Concrete materials
  - "Hands-on" materials

**Structured/Task Analysis Skills Training**
- Task analysis approach
- Work from student's errors
- Provide step by step procedures
- Tightly sequenced program
- Sheet of steps to follow

**Specific Program/Approach**
- Oregon Math
- Basic Math series
- Distar math
- Specialized time and money kits
- Finger math

**Individualized/Small Group Instruction**
- Individual attention
- One-to-one instruction
- Individual or small groups
- Small groups
- Individualized curriculums

**High Interest/Variety Materials**
- Interesting materials
- High interest level
- Variety of materials

**Repetition/Drill/Practice**
- Repetition/practice/drill
- Constantly review basics
- Constant, consistent review
- Drill in every form
- Lots of practice before moving on

**Specific Type of Material**
- Flash cards
- Calculators
- Visual aids
- Chalkboard work
- Games

**Practical Applications**
- Practical life-related problems
- Consumer oriented
- Application of skills to meaningful circumstances
- Consumer math approach
- Functional, life-oriented tasks

**Motivation/Reinforcement**
- Highly motivated student
- Consistent support
- Reinforcement whenever possible
- Motivational incentives
- Rewards and incentives

**Modality/Sensory Approach**
- Multi-sensory approach
- Determine modality through which learn best
Examples of Responses Within Categories of
What Works in Teaching Written Language to LD Students

Structured/Task Analysis Skills
- Sequential development of writing skills
- Task analysis of skill
- Systematic; sequential
- Begin with simple
- One skill at a time

High Interest/Personal/Variety Materials
- High interest material
- Practical applications of own thoughts
- Paragraphs on subject of own choice
- Lot of "fun" writing
- Vary assignments

Motivation/Reinforcement
- Reinforcement with rewards
- Encouragement and reinforcement often
- Consistent support
- Motivated teacher

Individualized/Small Group Instruction
- Individual attention
- Assign story-to be written by groups of 2-4 students
- Small group setting

Specific Program/Approach
- Fernald approach
- Frank Shaffer materials
- McGraw-Hill language series
- Language experience approach
- Cloze procedure

Modality/Sensory Approach
- Multisensory multimodality approach
- Ensure listening and reading skills are well established
- Use strongest modality
- Multimodality - tape recorders, typewriters
- Tactice/tracing

Practice/Correcting Errors
- Analysis of errors
- Rewrite their materials
- Daily practice
- Repetition
- Drill-repetition
PUBLICATIONS

Institute for Research on Learning Disabilities
University of Minnesota

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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.


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