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AUTHOR Polloway, Edward A.; And Others
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ABSTRACT

This study examined demographic and service delivery data derived from Individualized Education Programs of 153 elementary students with learning disabilities in a medium-sized city in northern Illinois. It specifically addressed family background, prevalence of secondary disabilities and health problems, behavioral and motivational characteristics, educational goals within students' instructional programs, and community services being provided. Analysis indicated: three times as many boys as girls were served by these programs; there was some overrepresentation of minority children; the more common family living arrangement was for single parent homes and non-nuclear family patterns; community support services were provided to approximately one-third of the children and their families; over 80 percent required additional services in speech and language; about 20 percent were regularly receiving medication; only 8 percent were identified as consistently self-motivated, with 80 percent responsive to extrinsic reinforcers; annual goals were predominantly academic with some social-emotional and language goals but few transition and career development goals; and, most students were receiving some related services but few were receiving adaptive physical education programming. (30 references) (DB)

Characteristics and Services in Learning Disabilities: A Report on Elementary Programs

Edward A. Polloway, Ed.D.
Lynchburg College (VA)

James R. Patton, Ed.D.
University of Hawaii

Michael H. Epstein, Ed.D.
Northern Illinois University

Thompson Aquah, M.Ed. candidate
Lynchburg College (VA)

Thomas W. Decker, Ph.D.
University of Scranton (PA)

Charles Carse, M.Ed.
University of Hawaii

Address correspondence to: Edward A. Polloway, Ed.D.
School of Education
and Human Development
Lynchburg College
Lynchburg, VA 24501

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Abstract

Recent governmental reports point to significant increases that have occurred in the public schools in the 1970s and 1980s within the population of students identified as learning disabled. The intent of the current study was to provide descriptive data both on the characteristics of a subset of students with learning disabilities relative to demographic, health-related, motivational, and behavioral characteristics, as well as on the types of services provided to these students. Data derived from individualized educational programs are presented on a total population of 153 students relative to ethnicity, possible presence of secondary handicaps, health-related and sensory problems, family status, specific behavioral problems, motivational traits, and types of educational and community services provided. The findings are discussed in terms of the evaluation of current educational practices and possible implications for future programming efforts.

Characteristics and Programs in Learning Disabilities: A Status Report

A frequent observation made in special education has been that the population of individuals served in programs for students with learning disabilities (LD) has experienced substantial increases in the last decade. For example, Reschly (1988) has referred to the epidemic of learning disabilities in the 1980s. Basic presumptions about the characteristics of this group need to be revisited as the number of students identified under this category increases.

Data from the federal government have provided a general indication of the magnitude of the increases that have occurred in the prevalence of students served in LD programs. For example, between the school years 1976-77 and 1987-88, which immediately followed the passage of PL 94-142, the prevalence of learning disabilities according to the Eleventh Report to Congress (U. S. Department of Education, 1989), increased nationally by 145%. According to the 1987-88 data base, 5.01% of the estimated school enrollment was identified as learning disabled.

Specific changes contributing to the increase in prevalence figures have been cited by the U.S. Department of Education (1986) and summarized by Heward and Orlansky (1988, p. 138).

These include:

a) eligibility criteria that permit children with a wide range of learning problems to be classified as learning disabled,

b) social acceptance and/or preference for the learning disabled classification,

c) the reclassification of some children from the category of mental retardation to learning disabilities,

d) the lack of general education alternatives for children who are experiencing learning problems in regular classes.

Given the changes that have been found statistically in the prevalence figures in learning disabilities programs, it is important for research to continue to establish benchmarks concerning the characteristics of this population. It seems apparent that the students in LD programs in 1987-88 when the prevalence percentage nationwide was 5.01% (U. S. Department of Education, 1989) can not be equated with the much smaller group of students placed in LD programs at the time of the initiation of services under 94-142 in 1976-77 (i.e.,1.80%). Perhaps even more evident is the variance of this population in recent years from the much smaller population to whom Kirk was referring in his original identification and labeling of the field in 1963.

Traditional statements, accurate or mythical, about the nature

of the population consequently warrant periodic review. Thus, it is beneficial to investigate whether some of the stereotypical views of the population of students with learning disabilities have validity. For example, several observations about this population have reflected presumptions about whether students with learning disabilities: are predominately male and Caucasian children of middle class backgrounds (e.g., Collins & Camblin, 1983; McCandless, Roberts, & Starnes, 197., Whelan & Griffing, 1982); experience problems in the school environment; do not primarily experience difficulties associated with other handicapping conditions (Minskoff, Sautter, Steidle & Baker, 1988; Toro, Weissberg, Guare, & Liebenstein, 1990); exhibit behavioral deficits or excesses (Toro et al., 1990; Cullinan, Epstein, & Lloyd, 1981); and, are provided primarily with educational services that focus on the 3R's, the so-called academic therapy (Marston, Mirkin, & Deno, 1984). The research reported in the current study is an attempt to investigate these and other related characteristics often ascribed to students with learning disabilities.

The primary purpose of the current study was therefore to analyze a group of students with learning disabilities relative to various demographic characteristics and service delivery dimensions. The major concerns addressed by this analysis include family background, prevalence of secondary disabilities and health problems, behavioral and motivational characteristics, educational goals within students' instructional programs, and community services being provided. Thus the research was intended to afford

a clearer picture of the population being served within public school programs for students identified as learning disabled with the intent of assisting service providers in program planning.

Method

Sample

Subjects were 153 elementary students identified as learning disabled (LD) and attending public schools in a medium-sized city in northern Illinois. All students were system-identified as LD under state and local school district criteria. The principal identification criteria were: a) intelligence in the normal range as determined by performance on a standardized IQ test (typically the WISC-R or Stanford-Binet); b) severe achievement deficits in reading and/or arithmetic; and, c) absence of defects in sensory acuity. Diagnostic procedures also called for assessment of perceptual, motor, language or social domains as appropriate; deficits in these areas however were not necessary for LD classification. All students were receiving special education services in special class-based programs located in regular public schools. The students ranged in age from 5-13 years.

Instrument

Individualized educational programs (IEPs) were obtained for all students. IEPs provided demographic and educational and related services information for the 1985-86 academic year. Five dimensions of demographic information were included: a) vital statistics (e.g., age, gender, race); b) behavioral characteristics (e.g., attention, distractibility); c) motivational characteristics

(e.g., verbal praise, self-motivated); d) health characteristics (e.g., health problems, health needs); and, e) identification of the child's primary caretaker (e.g., one or both parents, foster parents). Services information identified the types of services provided by the school (e.g., related services) and the community (e.g., Department of Public Aid).

Procedures

The IEP format provided 14 categories relevant to the current study of descriptive information. The categories were subdivided into three general areas for analysis: basic demographic data and family-related characteristics, secondary disabilities and health conditions, behavioral and motivational characteristics, and educational and related services. A numerical code was used to record all descriptive information from the individual IEPs. Each item for the respective categories had been previously assigned a code by the local school district. A complete listing of all possible responses for each category was provided by a district handbook. All categories had an assigned code with the exception of two (i.e., medication, program eligibilities). For these two categories, a numerical code was developed listing all possible choices. Since, in the area of community service agencies, a number of response choices were similar (and also very low in prevalence), these responses were combined into one category and labeled "other".

A multiple response category allowed the multidisciplinary team to identify one or more descriptive characteristics for each

student. Seven of the 14 categories were multiple response categories: (a) secondary eligibilities; (b) health characteristics, (c) motivational characteristics, (d) behavioral characteristics, (e) annual goals, (f) related educational services, and (g) community services. For example, the behavioral characteristic category had a list of 73 possible descriptors. From this listing, the multidisciplinary team could identify at least one but not more than four descriptive characteristics of a student's behavior. For each of these specific categories, the number of possible responses varied between two and eight responses. The remaining seven categories allowed only one discrete response (e.g., for gender) to be recorded by the team.

Analysis

For all 14 categories, a listing of the frequencies for each item was generated. For categories with mutually exclusive responses (e.g., gender, medication), the frequencies and percentages of the total sample were reported for each possible choice. Because of the number of response categories for other items, up to the eight most frequently cited characteristics were identified for presentation. For example, the category of motivational characteristics was composed of 35 possible descriptors; data on only seven are presented herein. In almost every category some missing data or lack of availability of data was evident. Thus, the total number of cases varied across categories.

Reliability

Reliability of the recorded information was completed on 20% of the IEPs. A second individual was given the original IEPs, a copy of the codes for each category, and the same instructions as the original recorders. An agreement was scored if the recorded code was identical to the code appearing on the IEP. For multiple response categories, an agreement or disagreement was scored for each response. For example, the motivational characteristics category had two possible responses. An agreement or disagreement was scored for each of the two responses. Reliability was calculated by dividing the number of agreements, by the number of agreements plus disagreements and multiplying by 100. For each of the separate categories, the reliability coefficients ranged from 98-100%. The overall reliability coefficient was 99%.

Results

The demographic and family-related characteristics are summarized in Table 1. Male students comprised three-fourths of the sample. Caucasian students represented 63% of the total cases while 34% of the students were Black. Somewhat over 40% of the students were residing with both of their natural parents, thus the majority were being raised in single parent homes or foster homes, or by other relatives. Approximately two-thirds of the students' families were not known to be involved with any governmental community agency. A small percentage of families (range = 2.0-7.5%) were involved with each of four respective social support agencies (as listed in Table 1).

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insert Table 1 about here

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Table 2 summarizes the data on secondary disabilities and on other health and sensory conditions. Of those students with identified secondary disabilities (N=84), speech and language disabilities were the most frequently cited condition. Additionally almost 10% were dually diagnosed as behaviorally disordered. Generally the students in this sample were in good health. Approximately one-half of the sample were reported to have no general health concerns and a very high percentage of the students exhibited problems determined through hearing and vision screenings. However, a significant number of students (21.6%) were receiving regular medication for either health-related concerns or for purposes of behavior management (e.g., hyperactivity).

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insert Table 2 about here

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Table 3 presents a summary of the most frequently cited behavioral and motivational characteristics of the sample. The largest number of students were perceived either as having difficulty maintaining concentration or as having no significant behavior problems. The multidisciplinary teams reported that the students were generally motivated by verbal praise and symbolic reinforcement (e.g., tokens) than by other traditional forms of positive reinforcement. More students were observed as being inconsistently motivated than as being consistently self-motivated.

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insert Table 3 about here

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A summary of the most frequently cited educational and related services are presented in Table 4. As expected, annual goals were primarily directed at the development of academic skills. Speech and language services were the most frequently provided related services with over 60% enrolled in such programs. Other notable educational support services cited included social work, counseling and occupational and physical therapy. The vast majority of students were participating in regular physical education classes.

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insert Table 4 about here

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Discussion

The purpose of this study was to provide a more comprehensive analysis of a variety of characteristics within this selected population of students served in learning disabilities programs. Specific findings provide an indication of the nature of a current population of such students and are thus suggestive of the types of programs needed to serve them.

Demographic and Family Related Characteristics

The traditional pattern of learning disabilities programs serving males was partially confirmed by these findings since there were three times more boys than girls in this sample. The racial composition of the sample was generally consistent with local

school division percentages where approximately 80% of the student population is white, contrasted with 63% of the LD sample. Thus, some overrepresentation of minority children was found although this figure is somewhat lower than reports for minority students in mild mental retardation programs (Brady, Manni, & Winikur, 1983; Epstein, Polloway, Patton, & Foley, 1989). The data do not confirm the concern that minority students are somewhat excluded from LD programs (Collins & Camblin, 1983).

Family constellation data confirm that the more common living arrangement is for single parent homes or for non-nuclear family patterns. These data, however, must certainly be placed in the context of the current family status of children in general. For example, Hodgkinson (1985) noted that only 7% of all American households consist of the traditional pattern of working father, housewife mother, and two or more school-aged children. Furthermore, he also reported that 59% of those children born in 1983 will at some time live with only one parent before reaching the age of 18.

Community support services were provided to approximately 1/3 of the children and their families in this study. The types of services suggest a blend of community services oriented to financial concerns (e.g., welfare) as well as support from social workers and public health professionals. Generalizations concerning social class factors based on these limited data would be speculative. However, since there is at least an indication of range of social class, this variable warrants closer investigation,

particularly given its relationship to academic achievement in students with learning disabilities (O'Conner & Spreen, 1988).

Secondary Disabilities

The key question to be explored from the study of the data in Table 2 is whether multiple disabilities are common in students with learning disabilities. It is apparent that the majority of the students do evidence additional difficulties with the most notable finding being that over 80% were identified as being in need of assistance in speech and language. These data support Marge's (1972) observation concerning the prevalence of language problems in students with learning disabilities.

Other data indicate that 9.5 percent of the students are also considered eligible for services in the area of behavior disorders. These data are instructive in that it has been a common observation that students with learning disabilities are likely also to exhibit emotional and behavioral disorders (BD) while students identified as BD frequently have serious academic problems (e.g., Epstein, Kinder, & Bursuck, 1989; Foley, Cullinan, & Epstein, 1990; Foley, Epstein, & Cullinan, 1990) thus increasing the likelihood of dual diagnoses. It remains possible, though speculative, that this figure is a conservative estimate based on the tendency to identify an individual student within only one of the traditional categories of mild disabilities.

Data on sensory and health-related problems in general do not suggest any outstanding general trends. Of particular note in terms of health statistics, however, is the fact that about one of

five children is regularly receiving medication. These data confirm the common finding that medical interventions continue to be prevalent in LD programs (Gadow, 1986).

Behavioral and Motivational Characteristics

Behavioral data confirm prior reports indicative of the fact that children in LD programs commonly experience attentional problems, in this case identified under the category of problems with concentration. However, only approximately 20% of the students were so identified so there is not conclusive support for the common finding of attentional deficits in students with learning disabilities (e.g., Krupski, 1981; Tarver, 1981). Further attention to the relationship between learning disabilities and attention deficit and hyperactivity disorder (ADHD) remains needed, particularly in light of its current controversial nature as a possible category of exceptionality (see Silver, 1991).

Data on motivational variables support the fact that students with learning disabilities are quite responsive to extrinsic reinforcers. This finding might be seen as being consistent with the often cited evidence of external locus of control in this population (e.g., Bryan, Pearl, Donahue, Bryan & Pflaum, 1983; Pearl, Bryan, & Donahue, 1980; Rogers & Sakloske, 1985). On the other hand, less than 8% were identified by their teacher as consistently self-motivated, a finding that argues for the continuing need for intervention strategies which develop self-control, including self-reinforcement, mechanisms (Rooney, Hallahan, & Lloyd, 1984); Rooney, Polloway, & Hallahan, 1985).

Educational and Related Services

The data on annual goals indicate that there is a clear emphasis on academic goals in these students' IEPs, a finding which is quite consistent with prior analyses of IEPs (e.g., McBride & Forgnone, 1985· Epstein, Patton, Polloway, & Foley, in press; Epstein et al., 1989; McCormick & Fisher, 1983). A positive finding was the emphasis placed on social-emotional, language and communication skills; approximately half of all IEPs had attention to these three respective domains. Although this finding is not surprising when compared to the secondary disabilities present in this sample, it is much more significant than in other research on IEPs, such as in McBride and Forgnone (1985) where virtually all goals were academic in focus. Transition and career development goals, however, were not frequently found on these student IEPs, suggesting that teachers of these students had not evidenced the need for long-range planning for their students.

In terms of related services, it is apparent that the clear majority of students are receiving some form of additional support. These data are quite consistent with the findings of Epstein and colleagues (1989) on students with mild retardation. These data provide further evidence for the case that the majority of students in this sample could be classified as having multiple disabilities.

Relatively few students are receiving adaptive physical education programming. If it can be assumed that such placement is available to all who need it (and thus that none of these students needed it), regular physical education classes apparently continue

to provide a primary opportunity for integration and social interaction.

General Discussion

Several limitations must be acknowledged in this study. Since the data were derived from only one geographical area of the country, generalizations to other programs must be done with caution especially given the interstate variance common in the prevalence of learning disabilities (U. S. Department of Education, 1989). Second, since the data on specific characteristics (i.e., behavioral and motivational characteristics) relied solely on clinical judgments made by the multidisciplinary teams, they certainly would require confirmation by other methodologies (e.g., direct observational measures, self-report instruments) to further enhance their validity. Third, as the data are a sample set from one local educational agency (LEA), conclusions drawn about patterns of school services and educational programs are naturally subject to particular idiosyncratic factors within this LEA. Since the data were drawn only from information contained within students' IEPs, it was not possible to verify their accuracy, such as in the classroom setting. Also, since the data represented just one year of IEPs, their continuing relevance in subsequent years can not be assumed. Finally, the sample consisted of only students in self-contained classes; this group can only be viewed as a subset of the total learning disabilities school population.

The findings presented in this study nevertheless provide further data to assist in the delineation of characteristics common

to students with learning disabilities and to the description of programs developed to serve their needs. To the degree that students with learning disabilities are represented by this sample (at least those in need of more intensive sources such as in self-contained programs), it appears defensible to postulate that multiple problems as associated with secondary disabilities are common. When the data on family background, health concerns, disabilities, related services, and behavioral characteristics are viewed globally, the portrait of learning disabilities programs as containing only children who simply have academic difficulties (e.g., can't read) does not appear accurate. Rather teachers need to anticipate encountering a quite diverse group of students within a given LD program. Although at the elementary level such a pattern may have more significant implications for variant teaching methodologies rather than for alternative curriculum foci, it supports the presumption that differentiated curricula are likely to be necessary at least by the time the students reach the secondary school (Polloway, Patton, Epstein, & Smith, 1989). Rather than representing a reasonably homogenous population, LD classes may now be more likely to evoke images of a one-room school house with a wide range of functioning levels and unique characteristics that have implications for educational programming.

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Table 1: Demographic and Family-Related Charactertistics

Category		Frequency	% of Cases[a]
Gender (n=153)			
	Males	116	75.8
	Females	37	24.2
Race (n = 152)			
	Caucasion	96	63.2
	Black	52	34.2
	Hispanic	3	2.0
	Oriental	1	0.7
Primary Caretaker (n=133)			
	Mother	56	42.1
	Both Parents	58	43.6
	Foster Placement	2	1.5
	Father	3	2.3
	Grandparent/relative	6	4.5
	Other	8	6.1
Community agency support services (n=102)			
	No known involvement	94	63.9
	Dept of Children & Family Services	11	7.5
	Special Education Cooperative	10	6.8
	Department of Public Aid	3	2.0
	Div of Services for Crippled Children	5	3.4

[a]Percentages based on total number of valid cases for each category.

Table 2: Secondary Disabilities and Health Conditions

Category	Frequency	Percentage of Cases*
Secondary Eligibilities (n=84)		
Speech/Language	70	83.3
Behavioral Disorder	8	9.5
Vision Impaired	1	1.2
Educationally Handicapped	2	2.4
Physically Handicapped	1	1.2
Mentally Impaired	1	1.2
Hearing Screening (n=150)		
No hearing problem	147	98.0
Mild loss	2	1.4
Profound loss	1	1.4
Vision Screening (n=150)		
No vision problem	116	77.3
Correctable to 20/20	18	12.0
Undetermined/Failed screening	10	6.7
20/40 - 20/69	4	2.7
20/70 - 20/200	2	1.3
Health Related Variables (n=152)		
No identified concerns	75	49.3
Medication (at home)	28	18.4
Hyperactivity	16	10.5
Allergies	14	9.2
Hygiene concerns	10	6.6
Other unspecified concerns	10	6.6
Medication (n=148)		
No medication	116	78.4
Receives medication	32	21.6

*Percentages based on number of valid cases for each category.

Table 3: Behavioral and Motivational Characteristics[a]

Category	Frequency	Percentage of Cases[b]
Behavior (n=151)		
Problems with concentration	30	19.9
No significant behavior problems	28	18.5
Impulsive	20	13.2
Slow to "warm up" in new situations	20	13.2
Attendance problems	15	9.9
Tries hard	13	8.6
Attention-getting behavior	12	7.9
Eager to please	12	7.9
Inattentiveness	8	7.5
Motivation (n=152)		
Motivated by verbal praise (e.g., "good job" statements)	74	48.7
Motivated by symbolic reinforcers	51	33.6
Motivated by material reinforcement	22	14.5
Motivated by activity reward	18	11.8
Inconsistently motivated	18	11.8
Consistently self-motivated	12	7.9
Motivated by nonverbal reinforcement	10	6.6

[a]Includes only those most frequently cited.
[b]Percentages based on total number of valid cases for each category.

Table 4: Educational and Related Services[a]

Category	Frequency	Percentage of Cases[b]
Annual Goals (n=153)		
Improve academics (reading)	134	87.6
Improve academics (math)	91	59.5
Improve language skills	84	54.9
Improve communication skills	74	48.4
Improve social-emotional development	73	47.7
Improve psychomotor (e.g., fine motor)	65	42.5
Improve social studies skills	48	31.4
Improve science skills	48	31.4
Related school services (n=109)		
Speech and language therapy	68	62.4
Social work	24	22.0
Occupational therapy	17	15.6
Home-school counselor	16	14.7
Art therapy	13	11.9
Group Counseling	9	8.3
Physical therapy	7	6.4
Special Education (n=150)		
Regular	134	83.9
Adaptive physical education	12	8.0
No physical education program	2	1.3
Other	2	1.3

[a]Includes only those responses most frequently cited.
[b]Percentages based on total number of valid cases for each category.