This article identifies challenges to the field of learning disabilities which will seriously affect access to higher education for learning disabled students. Problems at both secondary and postsecondary levels are articulated with a call for policy formulation, research, and administrative planning for change. Literature is reviewed pertaining to such issues as identification/definition conflicts and their fallout in incidence data; tracking; underpreparedness; and dropout rates; as well as administrative problems, service delivery concerns, and training/research needs. Contains 48 references. (PB)
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Postsecondary Education for Students with Learning Disabilities: Forecasting Challenges for the Future.

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Postsecondary Education for Students with Learning Disabilities: Forecasting Challenges for the Future

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Abstract

As more students with learning disabilities enroll in postsecondary settings nationwide, a number of issues should be considered by college level service providers, secondary learning disability personnel, and special education administrators. This article identifies challenges to the field of learning disabilities which will seriously affect access to higher education for learning disabled (LD) students. The paper articulates problems at both secondary and postsecondary levels with a call for policy formulation, research, and administrative planning for change.
As we approach the milestone of a new millennium, proactive planning for change is critical in meeting the needs of increasing numbers of students with learning disabilities who are accessing postsecondary education. This paper will expand upon several problems facing professionals who are working to expand higher education opportunities for qualified LD students, including the following: 1) issues at the secondary level which impact transition and access to postsecondary education; and 2) postsecondary institutional and research concerns which will challenge higher education administrators and student services personnel who are charged with affording qualified students with learning disabilities equal educational opportunities in postsecondary settings.

The "Why's" of Promoting Higher Education for Persons with Learning Disabilities

Before investigating challenges facing the field, it is important to consider reasons for the national thrust to promote higher education for persons with LD. One explanation can be found within the protection of the law. Today's high school graduates represent the initial classes under assurances stipulated by P.L. 94-142 and Section 504. The guarantee of "a free appropriate public education" in
"the least restrictive environment" has often meant that LD students are receiving the majority of their educational program within mainstreamed settings with nonhandicapped peers, leading to a heightened awareness that, in fact, a college degree is a realistic goal. As these students exit high school, pressure to expand postsecondary opportunities has been exerted by advocacy groups, concerned parents, professionals, and students themselves (Vogel, 1982), resulting in burgeoning numbers of LD students enrolling in colleges and universities nationwide. Learning disabled students represent the fastest growing segment of students with disabilities in higher education with the incidence of learning disabilities among freshmen having increased tenfold since 1978 (Learning Disability Update, 1986).

Employability constitutes another supporting argument for postsecondary training for LD students. From an economic perspective, data clearly point to the long term benefits of a college education as they relate to wage-earning power. The median annual income for male adult full-time workers, age 25 and older with five years or more of college is $39,335 in contrast to a median income of $23,853 for those with four years of high school (American Council on Education, 1989). Although the median is lower, comparable figures for females lead one to
conclude that education and potential earning power are intimately intertwined, suggesting that the economic quality of life for persons with LD can potentially be enhanced by earning a college degree.

Demographic and economic projections underscore the value of advancing postsecondary education for qualified LD students. As America ages or "grays out," effects on political, economic, and employment factors will be far-reaching. In 1985, the ratio of working age U.S. citizens to retirees was 5:1; by 2035, the ratio will diminish to 2:1, raising serious concerns for retirement benefits, particularly through the Federal Social Security System ("The Birth Dearth," 1987). Greater competition for certain types of jobs will arise because of an increase of at least ten million workers in the national labor force between now and 1995.

The impact of education on employability cannot be overlooked. In 1985, unemployment figures reached 17 percent for males who received one to three years of high school education in contrast to a five percent rate for males with one to three years of college education (Stern, 1987). With a "megashift" from an industrial to an information society, predictions suggest that by 1995, 75 percent of all jobs will involve computers (Naisbitt,
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1982). Projections of needs for selected occupations signal training concerns. From 1984 to 1995, demands for computer operators are expected to increase by 46 percent; for computer systems analysts, by 67 percent; and for electrical and electronic technicians, by 50 percent (American Council on Education, 1987).

Given the relationship between education and potential earning power, in light of demographic and occupational changes, it behooves policy makers to advance the cause of higher education for this cohort of qualified students who can then join the workforce, reach their employment potential, and assume responsible positions as contributing citizens and taxpayers.

In light of these themes, it is important to consider problems facing both secondary and postsecondary educators who serve the increasing number of students with learning disabilities.

Issues at the Secondary Level

Identification. Definitional controversy has afflicted the field since its inception in the 1960s (Adelman & Taylor, 1986a; 1986b) and is reflected in incidence data. In the Ninth Annual Report to Congress regarding implementation of P.L. 94-142 (1987), figures attest to
sizeable growth in the LD population. Of the more than four million youngsters receiving special education and related services, 1.9 million are students with learning disabilities. As illustrated in Figure 1, 22 percent of handicapped youngsters were identified as learning disabled in 1976/77. Figures from 1985/86 document a dramatic increase with the percentage nearly doubled.

This change in incidence has fueled the definitional debate which continues to challenge professionals and policy-makers alike. Farnham-Diggory (1986) noted that many children who appeared to have ordinary school difficulties were included under a broader definition of learning disabilities because of economic considerations in funding formulas. Citing 14 different operational definitions of learning disabilities according to three major categories, ability-achievement discrepancy, grade placement-achievement discrepancy, and scatter on selected assessment instruments, Farnham-Diggory noted that there is no difficulty, given these sources of diagnostic variability, to generate as large a learning disabled population as circumstances justify.
A recent article by Reynolds et al., (1987) summarized findings from several studies which suggest grossly disproportionate increases in identified learning disabled students relative to other handicapping conditions, and questionable labeling as a procedural strategy to obtain special services for hard-to-teach youngsters. Gelzheiser (1987) suggests that reexamination of the concept of disability is necessary to alter the focus of special education practice which has historically followed a medical model of pathology within the child. Altering the mainstream educational environment so that diversity among students can be accommodated would go a long way in serving hard-to-teach youngsters rather than labeling them as learning disabled. If the environment of schools is designed only to address the needs of the majority, then those who cannot meet such standards at a uniform rate will continue to be segregated and viewed as "pathological."

Lieberman (1986) warns against excellence in education if it will ultimately mean that students with differences will one more time be incapable of living up to new group standards, leading to continued segregation.

Implications of the labeling controversy for postsecondary service providers are several. Often colleges and universities require documentation of previous
identification of a learning disability as evidence to support eligibility for accommodations and academic adjustments mandated by Section 504. If misdiagnosis occurs at the elementary and secondary levels, and that misdiagnosis constitutes the basis for eligibility for accommodations at the postsecondary level, then it is predictable that colleges and universities may have identified grossly disproportionate numbers of students who may or may not possess specific learning disabilities. Differentiating between "slow learners," students with "mild learning problems," "underachievers," and those with specific learning disabilities constitutes a critical issue relating to differential service-delivery methods at all levels of education.

Underpreparedness. Because of "tracking," which allows limited flexibility in course selection at the secondary level, some students with learning disabilities do not meet postsecondary requirements for admission even though they have the potential for college-level studies. By virtue of curricular decisions which are made early in a student's high school program, professionals and parents may unwittingly be limiting postsecondary options which could have far-reaching effects with respect to employability and quality of living.
The underpreparedness of students with learning disabilities who are exiting high school (Vogel, 1987) may account, in part, for the discrepancy between nonhandicapped and learning disabled students' participation in higher education. Figures relating to students with learning disabilities suggest that 55-60 percent access postsecondary education and training (Mithaug, Horiuchi, & Fanning, 1985; White, Alley, Deshler, Schumaker, Warner, & Clark, 1982). In comparison, within the traditional college-age cohort (18-24 year olds), 80 percent of nonhandicapped students typically participate in some type of postsecondary training and education (Stodden & Boone, 1987). The cost of this disparity in terms of human potential and wage-earning capacity would be staggering. It is also impossible to know the impact of underpreparedness upon attrition rates for college students with LD since there have been no longitudinal studies investigating such variables.

**Incidence of High School Dropout.** Given the value of postsecondary education as it relates to employability and wage earning power, the issue of a disproportionate dropout rate for LD high schoolers must be addressed at the secondary level. Figure 2 provides a graphic overview of school outcomes for LD students. Approximately 59 percent
graduate, 47 percent with diplomas and the remainder with certificates (Ninth Annual Report, 1987). The dropout rate of 19 percent is probably a conservative estimate, since some students accounted for in the "other" category simply did not attend school or left for unspecified reasons. Although they were not officially designated as dropouts, it is highly probable that they fall into this category.

Among all handicapped students aged 16-21 who dropped out of school during 1985/86, the largest category (47 percent) were learning disabled (Tenth Annual Report, 1988). Research also confirms that a far greater percentage of LD students exit school as dropouts when compared to their non-LD peers (Levin, Zigmond, & Birch, 1985; Zigmond & Thornton, 1985).

Figures relating to post-high school status of dropouts suggest a bleak picture. Unemployment and underemployment among former learning disabled students are documented by numerous studies (Hasazi, Gordon, & Roe, 1985; McGuire, 1986; Mithaug, Horiuchi, & Fanning, 1985; Zigmond & Thornton, 1985) challenging us to examine issues relating to curricular decisions and early transition planning.
Clearly, there is a need to continue to study those factors which seem predictive of future dropout so that positive interventions can be initiated prior to and during high school. Innovative approaches such as the concept of accommodation identified in the ethnographic study completed recently by Miller, Leinhardt and Zigmond (1988), may provide school administrators with qualitative data about the milieu of the high school from which to reformulate approaches to educating at-risk LD students. Continued research into the "trade-offs" of alternative models is sorely needed.

Issues at the Postsecondary Level

Administrative considerations: Admission and academic adjustments. Postsecondary administrators will be increasingly pressured to operationally define Section 504 of the Rehabilitation Act of 1973 with respect to the phrase "otherwise qualified handicapped individual". Determining when an applicant with a specific learning disability is "otherwise qualified" has significant implications for college admissions policies. Bowen (1986) notes that institutional response to developing admissions standards for these potential students has been slow. A learning disability is often reflected in one or more areas
of academic achievement, the very essence of how many colleges and universities determine eligibility for admission. Standardized test scores on college entrance examinations such as the Scholastic Aptitude Test (SAT) may not be valid as an indicator of a learning disabled student's potential for college-level studies (Blanton, 1985). Postsecondary institutions are prohibited from asking preadmissions questions regarding a handicap. Yet test scores are often "flagged" when reported if they are obtained under non-standard testing conditions (e.g., untimed, with a cassette, large-print test book). How this impacts upon a student's right to confidentiality, yet simultaneously ensures an equal educational opportunity remains to be determined.

Academic adjustments must be afforded persons with disabilities in higher education, yet institutions are not required to alter technical standards (Southeastern Community College, 1979). Postsecondary personnel can anticipate challenges, given the collective "mood" of the nation about education. In response to criticisms being raised about the quality of the American educational enterprise (Bloom, 1987; Boyer, 1983; Goodlad, 1984), many colleges and universities are examining policies relating to required coursework for the baccalaureate degree.
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(Heller, 1987). A return to a more conservative undergraduate curriculum is often reflected in more stringent requirements for a broad, liberal tradition of courses, a core of common learning or what former Education Secretary W.J. Bennett called "... a clear vision of what is worth knowing and what is important in our heritage that all educated persons should know" (National Commission on Excellence in Education, 1983).

As more students with learning disabilities pursue postsecondary education, administrators and academicians will be challenged to review and revise policies which afford limited flexibility in meeting academic requirements. A number of studies document potential deficit areas among some learning disabled persons in abilities relating to foreign language learning (Apthorp, 1988; Blalock, 1982; Dinklage, 1971; Gajar, 1987; Ganschow & Sparks, 1987). Requests for course waivers and/or substitutions in areas of foreign language and quantitative requirements should serve as catalysts for administrators and researchers to determine alternative plans, and perhaps, teaching methodologies suited to addressing the learning styles of qualified students with learning disabilities. However, knowing when and where to draw the line so that substantial modifications or fundamental
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alterations to a program, and the compromise of technical standards do not occur, will require scrutiny and systematic study.

Service Delivery. The current state of affairs in service-delivery for the learning disabled at the postsecondary level represents a sincere attempt to meet student needs but is often unfounded or not supported by any efficacy research or evaluation data.

There are myriad approaches to serving LD college students. Some institutions make it clear that only those support services available for non-learning disabled students are provided. In other settings, special education faculty serve as mentors, tutors, or advocates for learning disabled students. Some postsecondary institutions refer these students to already existing campus resources such as diagnostic centers; reading, math, or writing centers; or counseling services. Whether personnel who staff these centers have any training in learning disabilities is questionable.

Other colleges provide accommodations and auxiliary aides such as tape recorded texts, notetakers, and testing accommodations which are available to any handicapped student. This "generic" approach to service delivery may be appropriate for some but not all students with learning disabilities.
Still other settings provide comprehensive, diagnostically-based programs with trained specialists and administrators, while other institutions address the needs of learning disabled students through remedial and developmental approaches, peer-tutoring models, or content tutoring.

Despite this diversity in service-delivery, there has been little systematic research regarding the efficacy of varied interventions (Sergent, Carter, Sedlacek, & Scales, 1988). Given the heterogeneity of the LD population, efficacy studies to assess types of services provided and student outcomes are necessary for informed decision-making. Evidence that, indeed, intervention at the college level is effective in retention and academic performance of LD students (McGuire, 1986) may provide the clout needed to garner administrative support.

In a period of economic "belt-tightening," college administrators will be faced with issues of financing who some refer to as "the should be" category of activities as opposed to legislated "must be done" activities. Unlike P.L. 94-142 which mandates or entitles a program of special education and related services for eligible students, Section 504 (29 U.S.C., Sections 791-794) mandates
nondiscrimination on the basis of handicap and reasonable accommodations. Provisions outlined in Subpart E extend to admissions, recruitment, testing, academic adjustments, and auxiliary aids. Some model programs for students with learning disabilities focus on special training approaches, but it may require litigation to determine institutional responsibility with respect to provision of such programs. In light of the escalating costs of higher education, the difficult issue facing postsecondary personnel will not be whether accommodations should be made but rather who is to pay for services. And this will occur at a time when there is a dearth of programs to meet current needs, irrespective of future projections. Mangrum and Strichart (1985) found that among over 1,800 postsecondary institutions they contacted, only 15 percent (179) offered services for learning disabled.

Training and Research Needs. In spite of interventions at the elementary and secondary levels, it has become evident that learning disabilities do not disappear and are not outgrown (Bruck, 1987; Johnson & Blalock, 1987). For some students, it is reasonable to assume that support services at the postsecondary level may play a major role in their continuing efforts to learn.
Student services staff are typically a source of assistance for all students in postsecondary settings. Many professionals find themselves cast into a role of working with students with learning disabilities regardless of their training and background. Efforts to learn more about the needs of these professionals can shed light on future efforts for staff development.

Data from a recent survey conducted by Norlander and Shaw (1988) among administrators and direct services personnel involved in working with learning disabled college students, suggest that the ability to interpret standardized tests of academic achievement was perceived as the single most desired competency. This may reflect a desire to better determine who is an "otherwise qualified handicapped individual." It may also relate to programmatic concerns: identifying students' achievement levels can generate appropriate intervention plans. Additional desired competencies included pinpointing learner strengths and weaknesses, interacting positively with faculty and administrators, management and leadership skills, and knowledge of effective cognitive interventions. Implications for training personnel through preservice and inservice programs are obvious.
Training activities should be data-based which suggests a critical need for research in a number of areas. Identification issues extend to adults with learning disabilities. In assessing the learning strengths and weaknesses of this population, the process is technically compromised by a lack of reliable and valid measurement instruments (Vogel, 1985). Research is needed to better understand those correlates of successful college performance among learning disabled adults. As course waiver requests increase, research will become increasingly important for validating the legitimacy of such petitions. Clearly, motivation, the ability to sustain effort and hard work, abilities to deal with the abstract, verbal nature of college curricula, and minimal competency levels need to be investigated on a longitudinal basis. By better understanding the interaction of these and other variables and their effects upon postsecondary outcomes, personnel at the college level will be better prepared to implement effective interventions. Research is also needed to enhance transition planning which can lead to a suitable match between the student, the institution, and appropriate support services (Shaw, Byron, Norlander, McGuire, & Anderson, 1987).
Another area warranting ongoing research is program evaluation (McGuire, 1988; McGuire, Harris, & Bieber, 1988). Until college personnel systematically identify those interventions which facilitate positive outcomes for college students with learning disabilities, we will continually have to ask whether we are simply "stringing together" services which have limited potential for fostering success among this cohort. Longitudinal studies of college graduates with learning disabilities should also be planned to gather information about their employment status, adult adjustment, and attitudes as well as their perceptions about the efficacy of their postsecondary experiences.

Finally, needs in the area of training will challenge us to expand our horizons. Although nearly 60 million adults participate in some form of educational training following high school, Figure 3 clearly indicates that most are not getting this training in colleges and universities. Facts from the Standard Education Almanac (Gutek & Tatum, 1984) demonstrate that roughly 46 million adults are being educated by other service providers including the U.S. Federal government and military, and more than 400 corporations. Expenditures by this second system of postsecondary education are staggering: upwards of $50
billion annually is invested in adult education (Gutek & Tatum, 1984). How professionals with expertise in learning disabilities establish linkages with these service providers will have a significant effect on training outcomes for adults with learning disabilities, many of whom may be undiagnosed.

Discussion

Assuring equal educational opportunities for students with learning disabilities at the postsecondary level implies a clear challenge. Refining the admissions process, planning with secondary personnel for transition to higher education for greater numbers of students, developing creative, cost-effective ways to provide services, and networking with professionals in other disciplines all require us to be visionaries if we are to face the changing needs of society and the economy. Naisbitt (1982) notes that "the most reliable way to anticipate the future is by understanding the present" (p. 23). Now is the time to actively address issues in the field of learning disabilities which, according to Kavale
(1987), are readily discernible--issues of definition, assessment, service-delivery, and policy-making. This article has attempted to demonstrate the relevance of these concerns as they impact upon postsecondary settings and equal opportunities for the adult with learning disabilities.
References


Figure 1. Percent of students with learning disabilities among all handicapped children receiving special education services (Ninth Annual Report, 1987).
FIGURE 2  Profile of Adults Receiving Educational Services (Gutek & Tatum, 1984).

Category:
1 Adults receiving educational training.
2 Adults receiving educational training from colleges and universities.
3 Adults receiving educational training from other service providers.