

DOCUMENT RESUME

ED 247 664

EC 162 764

AUTHOR Szuhay, Joseph A.; Williams, John M.
 TITLE Rehabilitation and Adults with Learning Disabilities. Rehabilitation Research Review #10.
 INSTITUTION Catholic Univ. of America, Washington, D.C. National Rehabilitation Information Center.; National Council on Rehabilitation Education.
 SPONS AGENCY National Inst. of Handicapped Research (ED), Washington, DC.
 PUB DATE 83
 CONTRACT 300-83-0006
 NOTE 41p.
 AVAILABLE FROM National Rehabilitation Information Center, The Catholic University of America, 4407 Eighth St., N.E., Washington, DC 20017 (\$7.50).
 PUB TYPE Reference Materials - Bibliographies (131) -- Information Analyses (070)
 EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
 DESCRIPTORS Adults; Eligibility; *Evaluation Methods; Federal Legislation; Job Placement; *Learning Disabilities; *Student Characteristics; Vocational Evaluation; *Vocational Rehabilitation

ABSTRACT

The report reviews 415 documents (1969-1982) on rehabilitation of adults with learning disabilities (LD). The vast majority of the literature reviewed emphasizes LD in children and/or education. A summary of content focuses on five major topics (sample subtopics in parentheses): legislation and regulations (eligibility of LD individuals 16 and older for vocational rehabilitation services); characteristics of LD persons; assessment (scarcity of citations on assessment of adult populations); vocational evaluation training and placement of LD adults in competitive employment); and vocational rehabilitation (needs for inservice training of state vocational rehabilitation personnel). Among recommendations offered is one calling for research on cost effective outcomes of vocational rehabilitation and another urging a nationally acceptable model of state VR services. The annotated bibliography includes information on titles, authors, sources, and publication date. (CL)

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REHABILITATION AND ADULTS WITH LEARNING
DISABILITIES

10

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This cooperative project is funded by Research Contract No. 300-83-0006 from the National Institute of Handicapped Research, U.S. Department of Education, Washington, D.C.

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REHABILITATION RESEARCH REVIEW
Rehabilitation and Adults with Learning Disabilities

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REHABILITATION RESEARCH REVIEW

PROJECT SUMMARY

"...Synthetic research involves reviewing the research literature available in some defined area of interest and summarizing and integrating the results into tentative conclusions regarding the current state of knowledge..."

(Bolton, 1974, p.10)

The REHABILITATION RESEARCH REVIEW project originates from the National Rehabilitation Information Center's (NARIC) 1983, National Institute of Handicapped Research (NIHR) contract. To assure quality research and the maximum participation of professionals in the field of rehabilitation, NARIC invited the National Council on Rehabilitation Education (NCRE) to serve as the project's co-sponsor.

REHABILITATION RESEARCH REVIEWS were initiated to create state-of-the-art reviews on a variety of rehabilitation topics.

Each of the REVIEWS consists of two parts:

- o an integrated, analytical literature synopsis, including the author's observations, conclusions, and recommendations for future research; and
- o an annotated reference list, including annotated bibliographic entries.

Each REHABILITATION RESEARCH REVIEW represents the individual author's opinions and not necessarily those of NARIC, NCRE or NIHR

Bolton, B. Introduction to Rehabilitation Research. Springfield, IL: Charles C. Thomas, 1974.

However, this type of synoptic research provides professionals with an opportunity to reflect upon the strengths and weaknesses of the research available in each subject area, and thus, offers valuable feedback to NIHR as well as to the larger rehabilitation community.

This project also stands as a model of cooperative efforts. The co-sponsorship between NARIC and NCRE strengthened the substantive value of each of the final documents. The printing contribution by The Xerox Corporation greatly increased the dissemination possibilities for the entire project. Xerox's donation of services to REHABILITATION RESEARCH REVIEWS demonstrates the Corporation's continuing dedication to active involvement in public sector projects.

These collaborative efforts are important because of the intrinsic value of the project. Each REHABILITATION RESEARCH REVIEW takes a new step in the utilization of available research. The sheer volume of research studies conducted as well as the variety of publication sources can make the use of this information a complex and time consuming process. By closing the gap between the producers and consumers of knowledge and technology, it is hoped that REHABILITATION RESEARCH REVIEWS will help to avoid duplication of research efforts and will significantly add to the possibility for innovative applications of research information.

THE NATIONAL REHABILITATION INFORMATION CENTER

The National Rehabilitation Information Center, NARIC, is a rehabilitation research library located at The Catholic University of America (CUA) and funded by The National Institute of Handicapped Research, (NIHR), of the U.S. Department of Education. Established in 1977, NARIC's goals are to:

- o Facilitate dissemination of rehabilitation information;
- o Promote utilization of rehabilitation research;
- o Serve as an archive for NIHR and Rehabilitation Services Administration (RSA) documents; and
- o Make information on assistive devices available to professionals serving disabled persons, researchers, and disabled consumers.

In sponsoring the REHABILITATION RESEARCH REVIEW, NARIC's responsibilities included identifying and selecting authors; developing author guidelines; providing each author with topical bibliographic searches of REHABDATA and other relevant databases, as well as supplying a variety of supplemental resources. NARIC staff wrote citations and annotations and supplemental materials for each document in addition to serving as editor and publisher.

NARIC will house and distribute the REHABILITATION RESEARCH REVIEW documents.

THE NATIONAL COUNCIL ON REHABILITATION EDUCATION

The National Council on Rehabilitation Education (NCRE), is a professional organization composed of over 500 educators, trainers, and staff development specialists which represents over 180 academic training programs and research projects related to the field of rehabilitation education. NCRE is dedicated to quality services for persons with disabilities, ensured by high standards of pre-professional education, continuing education for practicing rehabilitationists, and ethical standards. The organization also lobbies on behalf of enabling legislation and supports mechanisms needed to maintain quality services such as accreditation, certification, professional literature, and the like.

Participation in the REHABILITATION RESEARCH REVIEW Project provided NCRE members an opportunity to further their organizational goal of "utilization and application of rehabilitation research." NCRE authors and members of the Advisory Committee volunteered their time and expertise to the project.

Dr. Kenneth W. Reagles, NCRE Advisory Committee Chair, assisted the NARIC REHABILITATION RESEARCH REVIEW Project Director with selection of topics and authors, as well as consulting with authors regarding substantive research issues. The NCRE Advisory Committee provided a peer review of the final documents.

THE NATIONAL INSTITUTE OF HANDICAPPED RESEARCH

The National Institute of Handicapped Research (NIHR), a part of the Office of Special Education and Rehabilitation Services of the U.S. Department of Education, provides leadership and support for a national and international program of comprehensive and coordinated research regarding the rehabilitation of disabled persons. The Institute's mission also encompasses the dissemination of information concerning developments in rehabilitation procedures, methods and devices to improve the lives of persons of all ages with physical and mental disabilities, especially those who are severely disabled.

The Institute carries out its mission through a variety of programs including:

- o The Research and Demonstration Project
- o The Research and Training Centers
- o The Rehabilitation Engineering Centers

The REHABILITATION RESEARCH REVIEW project is a component part of the Institute's goal of transforming research knowledge into comprehensive documents for dissemination and utilization. Thus, NIHR funded NARIC to develop and implement the REVIEW project. NIHR staff specialists provided a review of the documents prior to publication. Additionally, in the continuing effort for coordination and cooperation among federal agencies, staff specialists from the Rehabilitation Services Administration (RSA) also participated in reviewing the documents.

REHABILITATION AND ADULTS WITH LEARNING DISABILITIES

REHABILITATION AND ADULTS WITH LEARNING DISABILITIES

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October, 1983

INTRODUCTION

The purpose of this REHABILITATION RESEARCH REVIEW is to provide an analytical synopsis and annotated reference list of the professional literature on the topic of the rehabilitation of learning disabled adults. By providing an extensive review of the research literature relevant to rehabilitation and learning disabilities from 1969 to 1983, it is hoped this REVIEW will "serve an important role in the integration of studies and translation of results into implications ..." (Bolton, 1974, p. 12).

Description of Sources

A total of 415 documents were selected for inclusion in this REVIEW. Resources utilized to identify relevant documents included NARIC's database, REHABDATA, Bibliographic Retrieval Service (BRS), the local university library, and selected state vocational rehabilitation agency

Bolton, B. Introduction to Rehabilitation Research. Springfield, IL: Charles C. Thomas, 1974.

resources.

The literature reviewed was categorized into key words or themes. The vast majority of the literature emphasized learning disability of children (237) and/or education (230). Ninety articles focused upon assessment and evaluation; 46 were bibliographies; 41 were directories of facilities serving learning disabled persons; 45 stressed legislative and regulatory educational issues; 23 described specific local programs and/or training of children; 8 focused on attitudes; 2 described independent living arrangements; 62 concentrated upon adults with learning disabilities; 8 described local school training and/or work-study programs; and 20 described vocational rehabilitation efforts with the learning disabled population. This REVIEW will concentrate on the following categories:

- o Legislation and Regulations
- o Characteristics of Learning Disabled Individuals
- o Assessment
- o Vocational Evaluation Training and Placement
- o Vocational Rehabilitation

SUMMARY OF CONTENT

Legislation and Regulations

A considerable amount of literature (45 citations) described the chronology of events leading to the eligibility of those with learning disabilities for vocational rehabilitation services (Gerber, 1981). The proposed legislation for the 1978 Amendments to the 1973 Rehabilitation Act were later published in the Federal Register (1979).

The Rehabilitation Services Administration (RSA) of the U.S. Department of Education in 1981 forwarded an informational memorandum to the state vocational rehabilitation agencies regarding the eligibility of learning disabled individuals 16 years of age and above (Acceptance of Specific Learning Disabilities as a Medically Recognizable Disability Program Instruction, 1981). The definition that RSA accepted for specific learning disability is as follows:

Individuals who have a disorder in one or more of the psychological processes involved in understanding, perceiving, or using language, or concepts (spoken or written) - a disorder which may manifest itself in problems related to listening, thinking, speaking, reading, writing, spelling, or doing mathematical calculations - - who would be eligible to receive vocational rehabilitation services if they satisfy the following criteria:

- (a) Their psychological processing disorder is diagnosed by a licensed physician and/or licensed or certified psychologist who are skilled in the diagnosis and treatment of such disorders; and
- (b) Their disorder results in a substantive handicap to employment; and
- (c) There is a reasonable expectation that vocational rehabilitation services may benefit the individual in terms

of employability.

Individuals who have learning problems which are caused by one or more of the following conditions (visual impairment, hearing impairment, motor handicap, mental retardation, emotional disturbance) may be eligible for vocational rehabilitation services under other disability categories.

The next major step was to code the condition as a separate RSA category of disability. Before the RSA-1981 memorandum, persons with learning disabilities were coded in any of several categories including "other disabling diseases and conditions not elsewhere classified;" "other disorders of the central nervous system, not elsewhere classified;" or "other character, personality and behavior disorders." Code #524 was designated for learning disabled clients with disorders of specific areas of development not due to another disorder. This decision was announced at the National Short-Term Training Program at Denver conducted by the San Diego State University and reported in its proceedings (Patton, 1982).

Characteristics of Learning Disabled Individuals

Twenty-five citations concern themselves with identifying the characteristic problems of learning disabled adolescents (McCarthy and McCarthy, 1969; Cruickshank, Morse, & Johns, 1980; Myers & Hammill, 1982). Cronin and Gerber (1982) provide a detailed listing of the academic, social, emotional and vocational characteristics of learning disabled adolescents. Patten and Polloway (1982), provide an excellent description of the personal, emotional, social, psychological, academic, and vocational characteristics of learning disabled adults. An

empirical survey of adjustment issues for learning disabled adults as compared to non-learning disabled adults by White, Alley, Deshler, Schumaker, Warner, and Clark (1983), pointed to comparative differences in: adjustment to vocation (i.e. those with learning disability have significantly lower mean job status than those without); greater use of medication; less involvement in social activities; and more criminal activity.

Crystal and Witten (1982) presented a comprehensive analysis of the rehabilitation issues related to learning disabled individuals which included the psychological and social aspects and issues, educational and employment issues, and implications for rehabilitation counselors.

The most detailed survey of work-related medical, social, psychological and educational characteristics of learning disabled adult populations was conducted by Szuhay, Newill, Scott, Williams, Stout, and Decker (1980). Thirty-one (n = 31) learning disabled adults who had completed vocational training and 45 learning disabled adults who had not attended vocational training were asked to describe their education, medical, social, psychological, and vocational problems. Among the identified problems were: hyperactivity; clumsiness; high fever; lack of coordination; forgetfulness; difficulty reading, writing, calculating, and spelling; poor listening skills; daydreaming; poor test-taking skills; tiredness; tardiness of work; difficulty making friends; repeated mistakes; getting lost; difficulty judging weight; and poor concentration. This survey also showed that learning disabled adults appear to have little difficulty sitting, standing, or walking

for extended periods (i.e. 8 hours per day) or using hand tools. Those who had received vocational training were more likely to be employed in satisfying jobs; most (68%) were employed. Verbal I.Q. on the Wechsler Adult Intelligence Scale, ranged from "below 75 to 105" with most scores falling at the lower end. Performance I.Q. ranged from "below 75 to 105". Wide Range Achievement Reading Subtest scores ranged from "below 3.0 to 10.0" (67% of the scores falling below 6.9); and Math Subtest scores ranged from "below 3.0 to 6.9" (fairly evenly distributed). These intelligence and achievement scores are consistent with the characteristics of learning disabilities identified by several authors (Myers & Hammill, 1982; Cruickshank, Morse, & Johns, 1980).

Assessment

Ninety citations primarily focus on with assessment of learning disabilities. The vast majority of them (75 citations) relate to assessment of learning disabilities in children. Assessment of eye disorders (Ottensbacher, Watson, and Short, 1979); short-term memory (Swanson, 1978; 1980); problem-solving skills (Swanson, 1980); form perception (Scarpati and Swanson, 1980); sensory integrative dysfunction (Chapparo, Yerxa, Nelson, & Wilson, 1981); as well as I.Q. achievement and neuropsychological testing (Wolinsky, 1977; Mauser, 1982) of children are described in these articles. Few citations (2) dealt specifically with late adolescent or adult groups (Weller & Strauser, 1980; Schmidt and Sprandel, 1982). Integration of educational, psychological, and vocational assessment tools is only mentioned by

Rosenberg and Robinault (1976).

The citations on diagnostic assessment of learning disabled adults are few. Cato and Rice (1982) provide a listing of informal tests, observational measures, standardized tests (e.g., perceptio. achievement, behavior, intelligence), and neuropsychological test batteries useful for diagnosis of learning disabilities in adults. The Texas Rehabilitation Commission's Manual, Vocational Rehabilitation Process for Specific Learning Disabilities (undated), provides examples of behavior checklists and directions for behavioral observation of the learning disabled adult. Sheldon and Prout (1983) point to the present concern over instrumentation necessary for accurate diagnosis of learning disabilities in adults seeking vocational rehabilitation through state agencies. Some states strongly advocate use of neuropsychological instruments while others rely on standardized I.Q. and achievement testing.

McCue (1981) reported that adult learning disabled persons who received psychological assessment did not differ from those who received neuropsychological assessment with respect to their employment status at closure or in the overall cost of services. However, in this study of closed cases, services to clients receiving neuropsychological testing were significantly shorter and they earned significantly higher wages than individuals who received only psychological assessments.

Szuhay, Newill, Scott, Williams, Stout, and Decker (1980) provide the most detailed review of all the assessment tools available for diagnosis of learning disabilities among adults. They point out that

the use of the Wechsler Adult Intelligence Scale - Revised and the Wide Range Achievement Test have been cited most frequently in the literature. Other specific tests of sensory deficits, language problems, and problem-solving skills are also frequently used. Informal observation and behavioral checklists are useful because they provide readily available information in support of a diagnosis of learning disability, at a limited cost. Although use of neuropsychological test data is seen to increase accuracy of diagnosis and to provide information useful for educational and/or vocational programming, the cost of neuropsychological testing makes it necessary to reserve its use for cases where traditional standardized testing and behavioral assessment provide inconclusive data. The behavioral checklist described in the Szuhay, Newill, Scott, Williams, Stout and Decker (1980) model of state vocational rehabilitation agency service delivery to learning disabled adults is particularly useful for vocational rehabilitation counselors as an informal assessment device.

Vocational Evaluation Training and Placement

Ten citations deal specifically with vocational skills development and/or placement of learning disabled adults (i.e. 16 years of age or older). Pre-vocational and vocational training of learning disabled adolescents through school-based programming dominates these citations. Manner (1980) provides a model vocational training program for learning disabled adolescents and discusses skill training requisites to performance of specific occupations. McKay and Brumback (1980), in

their discussion of the relationship between learning disabilities and juvenile delinquency point out that vocational programming emphasizing strengths is the most appropriate alternative to traditional educational programs for dealing with learning disabled delinquents. McCray (1979) relates concepts of learning to vocational evaluation of the learning disabled.

Placement of learning disabled adults in competitive employment has received little attention in the learning disabilities and rehabilitation literature. Vocational counseling, goal planning, training program options, placement, and follow-up for learning disabled adults are discussed in detail by Cato and Rice (1982). Little outcome data on successful placement of persons with learning disabilities was mentioned in this discussion. In addition, little outcome data on effectiveness of vocational training and rehabilitation of learning disabled adults exists in the current literature. As suggested by Szuhay, Newill, Williams, Stout and Decker (1980), the existing vocational training and placement literature cites few empirical outcomes. Anecdotal information gained by Szuhay, Newill, Williams, Stout and Decker, (1980) in their surveying of 15 facilities serving learning disabled adults pointed to dramatic successes, but no controlled research was available to substantiate these claims.

Vocational Rehabilitation

The body of literature devoted to the vocational rehabilitation of learning disabled adults is sparse and largely of a nonempirical nature.

Educators have become aware of special needs for learning disabled students and graduates of secondary schools. The potential for rehabilitation services for secondary school students was studied in Colorado by Buckley (1981) and in North Carolina by Black (1976). Bartlow (1979) noted that eligibility for these services was difficult to obtain.

Brown, (1981, 1982) reports progress within state vocational rehabilitation agencies regarding persons with learning disabilities receiving rehabilitation services. In a monograph for the West Virginia Department of Vocational Rehabilitation, Phelps (1981) describes the state of the art concerning specific learning disabled. One of the specific needs cited by Gray (1981) is that the existing vocational rehabilitation services must become responsive to the needs of learning disabled adults. Fafard and Haubrich (1981) indicated that learning disabled young adults need vocational assistance; yet only one of the 21 individuals in the study had contact with a vocational rehabilitation counselor while enrolled in high school. White, Deschler, Schumaker, Warner, Alley, & Clark, (1983) studied the effects of learning disabilities on postschool adjustment of 47 learning disabled and 59 non-learning disabled former students. They found that although learning disabled young adults appear to be adjusting to finding and maintaining employment as well as their non-learning disabled counterparts, they were significantly less satisfied with their employment situation. In a Pennsylvania study Szuhay, Newill, Williams, Stout and Decker (1980) found learning disabled adults had a hard time getting a job; many were

also dissatisfied with the job found; however 76% of those in the Pittsburgh area were unemployed.

Since the memorandum from RSA (1981) authorized services to learning disabled populations, most states have taken steps to serve resident, eligible learning disabled adults. A variety of models for service deliveries were proposed (Szuhay, Newill, Williams, Stout and Decker, 1980; Kapur, 1982; Texas Rehabilitation Commission, undated; Vocational Rehabilitation Center of Allegheny County, 1983; Crystal & Witten, 1982). Several exceptional manuals have been prepared for state vocational rehabilitation counselors regarding eligibility and services to persons with learning disabilities (Phelps, 1981; Texas Rehabilitation Commission, undated).

From surveys of state vocational rehabilitation agencies, Sheldon and Prout (1983) reported that 90% of state vocational rehabilitation agencies had policies and procedures in force with the RSA definition of learning disability as written or with some variations. In states that recommend neuropsychological testing for assessment, they found the tests of choice are the Halstead-Reitan, Luria-Nebraska, and the McCarron - Dial batteries. Most states are providing programs to learning disabled persons as they do to any other disability group, although a few are developing specific programs for this population. Inservice training of state vocational rehabilitation agency personnel and programs for prospective employers are needed. Very little progress has been made in these areas.

OBSERVATIONS AND RECOMMENDATIONS

Observations

The authors review of the literature indicates that vocational rehabilitation of learning disabled adults has received little attention in the literature. The vast majority of journal citations are related to education of learning disabled children. Obviously, it was to this literature that vocational rehabilitation programs had to turn in order to define learning disabilities, identify its characteristics, diagnose its existence, and plan service delivery. Yet, models of assessment and service delivery for learning disabled children neglect work, one of the primary indicators of adjustment to adulthood. The educational model works well with children, but offers limited insight into service delivery to learning disabled adults.

The literature on vocational assessment, training, and placement of learning disabled adolescents is preoccupied with school-based programs. Unfortunately, not much insight into vocational rehabilitation of learning disabled adults is gained from such programs. The few outcomes cited in the school-based program literature are encouraging, but all lack experimental control. What exists is basically descriptive and lacks the rigor of experimental design. It is an interesting dilemma to know with whom we are dealing and how to identify them, but not to know how best to serve their vocational needs. For the present, the authors suspect that traditional vocational evaluation, training and placement techniques will be used with learning disabled adults. Vocational

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4. Identify a nationally acceptable model of state agency vocational rehabilitation agency service delivery.

It is highly likely that a unique combination of prescriptive educational techniques and traditional vocational evaluation and training methods may be required in order to produce the most favorable outcomes. Anecdotal information on outcomes of vocational programs which integrate educational and vocational rehabilitation methods was acquired by Szuhay, Newill, Williams, Scott, and Stout (1980) in their survey of facilities serving learning disabled adults. Somewhat surprisingly, they found that learning disabled adults with sporadic work histories involving employment in menial, repetitive unskilled work activity, (or with no work history) acquired college degrees or entered semi-skilled or skilled industrial occupations.

It is the authors' firm conviction that the outcome literature will show that learning disabled adults can be trained for skilled industrial and professional employment.

ANNOTATED REFERENCE LIST

VOCATIONAL REHABILITATION AND ADULTS WITH LEARNING DISABILITIES

ANNOTATED REFERENCE LIST

Acceptance of specific learning disabilities as medically recognizable disability program instruction (RSA PI-81-22). Washington, D.C.: Rehabilitation Services Administration, July 1981.

Information prepared for state rehabilitation agencies providing updates on the current RSA policy regarding eligibility of individuals with specific learning disabilities for state vocational rehabilitation programs.

Aune, E., & Gray, L. Job success for the adult with learning disabilities. ACLD Newsbriefs, May-June 1983, 150, 18.

Identifies approaches for learning individuals to develop competency in searching for and maintaining jobs. Remedial and compensatory strategies outlined for dealing with deficits in cognitive, perceptual, verbal, numerical, and social skills.

Baren, M., Liebel, R., & Smith, L. Overcoming learning disabilities: A team approach. Reston, VA: Reston Publishing Company, 1978.

Discusses all aspects of learning disabilities from a combined team approach. Provides an explanation of causes, as well as an overview of the common medical, psychological and educational approaches. Contents include: identification; remediation and a variety of appendices, checklists and forms. Text includes figures, graphs, tables, and pictures. includes references.

Bartlow, C. Vocational rehabilitation services for learning disabled adolescents. Journal of Clinical Child Psychology, Fall 1979, 8(3), 250-252.

Overview of issues related to meeting the increasing need for vocational training and support services for learning disabled adolescents. Describes cooperative program between Oklahoma Department of Vocational Rehabilitation and the local school system.

Black, T. J. Where do I go from here? The involvement of vocational rehabilitation and occupational education with the learning disabled in North Carolina. Rehabilitation Literature, 1976^o, 37(6), 168-171.

The lack of special programs, facilities, organizations and methods available to work with learning disabled adolescents is discussed. Two cases are presented to illustrate the problem. The Vocational Rehabilitation and Occupational Education programs being used in 34 North Carolina schools are considered as one answer to the need for services in this area.

Bolton, B. Introduction to rehabilitation research. Springfield, IL: Charles C. Thomas, 1974, 206 p. (NARIC Call No. R0474)

An introduction to research methodology and statistics in the field of rehabilitation. A basic text and reference work for students in rehabilitation counseling training programs and for practicing rehabilitation counselors.

Brown, D. Independent living and learning disabled adults. American Rehabilitation, 1982, 7(6), 18-28.

Discusses four residential programs which teach independent living skills primarily to learning disabled young adults. Suggestions are given for people interested in starting similar programs.

Brown, D. The learning disabled adult: An administrative challenge. American Rehabilitation, 1982, 8(2), 23-27.

Historical overview of the increasing awareness of learning disability as a severe handicap. Discusses the efforts made to serve persons with learning disabilities within the vocational rehabilitation system. Training and program development at the state level is also presented.

Brown, D. Learning to work: A story by a learning disabled person. American Rehabilitation, 1983, 9(1), 3-7.

A personal account of how a learning disabled individual discovered and coped with the disability.

Brown, D. Rehabilitating the learning disabled adult. American Rehabilitation, January-February 1982, 7(3), 3-11.

Uses case studies to illustrate the many kinds of possible learning disabilities and the role of vocational rehabilitation in helping clients overcome employment-related problems caused by their disabilities. A glossary of common terms and their definitions is included.

Brown, D. Success stories: Advocacy with rehabilitation agencies. Disabled USA, 1981, 4(4-5), 22-24.

Describes the cases of three disabled persons who successfully worked to change rehabilitation policies and improve services in their states. Discusses methods useful to those attempting to change policies and agency practices.

Buckley, G. W. Learning disabled students in Colorado secondary schools: Potential for rehabilitation services. (Doctoral Dissertation, University of Northern Colorado, 1980). Dissertation Abstracts International, 1981, 41(10), 4357A.

Secondary school Special Education teachers were surveyed regarding their learning disabled students. Results indicated teachers view services beyond the educational level as important and had minimal difficulty determining causation of their students' learning disabilities.

Carnine, D., Elkind, D., Hendrickson, A., Meichenbaum, D., Sieben, R., & Smith, F. Interdisciplinary voices in learning disabilities and remedial education. Austin, TX: Pro-ed, 1983.

Provides an overview of professional perspectives from authors outside the field of education. Some chapter topics include, "Stress and Learning Disabilities"; and "Medical Treatment of Learning Problems - A Critique."

Cato, C. E., & Rice, B. D. Report from the study group on rehabilitation of clients with specific learning disabilities. Paper presented at the Ninth Institute on Rehabilitation Issues, St. Louis, MO, June 1982. (NARIC Call No. 05456)

This manual for providing services to clients with specific learning disabilities (SLD) attempts to address major issues and answer questions regarding initiation and development of SLD services.

Chapparo, C. J., Nelson, J. G., Yerxa, E. J., & Wilson, L. Incidence of sensory integrative dysfunction among children with orofacial cleft. The American Journal of Occupational Therapy, February 1981^o, 35(2), 96-100.

Report of a study exploring possible developmental difficulties in sensory integrative or perceptual abilities in children with cleft palate. Method, results, implications and questions requiring further investigation are included.

Cronin, M. E., & Gerber, P. J. Preparing the learning disabled adolescent for adulthood. Topics in Learning & Learning Disabilities, October 1982^o, 2(3), 55-68.

Discussion of the need for assessment and programming to prepare learning disabled adolescents and young adults to meet the problems and demands of adult life. Studies and recently developed curriculum models are reviewed.

Cruickshank, W. M., Morse, W. C., & Johns, J. S. Learning disabilities: The struggle from adolescence toward adulthood. Syracuse: Syracuse University Press, 1980.

Comprehensive approach aimed at helping professional educators, psychologists, and parents of learning disabled adolescents whose special problems are detailed in five case histories. Includes discussion of theoretical background as well as teaching and testing methods for secondary school students with perceptual processing deficits.

Crystal, R. M., & Witten, B. J. (Eds.). Learning disabilities: Implications for rehabilitation research, teaching and service. (Kentucky Studies in Rehabilitation, Series I, Monograph I.) Lexington: University of Kentucky, Graduate Program in Rehabilitation Counseling, 1982, 45 p. (NARIC Call No. R01691)

Report on a pilot study done by the University of Kentucky Program in Rehabilitation Counseling on the psychological, vocational, social, educational, and related needs of learning disabled individuals. Includes a project description, discussion of related rehabilitation issues, a report on a learning disability needs assessment conference and an article on learning disability.

Dunlap, C., & Moretti, V. Access to employment: The SLD person at work. ACLD Newsletter, May-June 1983, 150, 4.

Goals and characteristics of Electronics Industries Foundation's Project with Industry are discussed with emphasis on the project's support for using existing vocational rehabilitation programs and services to serve learning disabled persons.

Fafard, M., & Haubrich, A. Vocational and social adjustment of learning disabled young adults: A follow-up study. Learning Disability Quarterly, 1981, 4(2), 122-130.

Young adults who received services for learning disabilities as children were interviewed in regard to their adjustment. Results indicated that throughout their schooling a majority required additional services, needed vocational support and depended upon family support for social activities. Includes references.

Gerber, P. J. Learning disabilities and eligibility for vocational rehabilitation services: A chronology of events. Learning Disability Quarterly, 1981, 4(4), 422-425.

A history of the significant events which led to a fundamental change in the professional perception of learning disabilities. This changed perception has allowed severely learning disabled individuals to access vocational rehabilitation services.

Geyer, N., & Hartman, R. Fact sheet: The learning disabled adult and postsecondary education. Washington, DC: Heath Resources Center, 1981. (NARIC Call No. R1560)

Publication defining learning disability and listing information resources useful in the area of postsecondary education of learning disabled adults. Resources include postsecondary institutions with special programs, federally supported programs, organizations and self-help groups, publications and special testing services.

Gray, R. A. Services for the LD adult: A working paper. Learning Disability Quarterly, 1981, 4(4), 426-434.

This paper presents suggestions for consideration when evaluating programs, designing services and planning research for learning disabled adults. Implications for educators and those designing services are discussed. Includes references.

Hartlage, L. Neuropsychological assessment techniques. In C. Reynolds

& J. Gutkin (Eds.), Handbook of school psychology. New York: Wiley, 1981.

The chapter is devoted to diagnosis and treatment of learning disabilities. Research on the cerebral hemisphere as it relates to education and school psychology is described. Specific tests are covered in the research areas. Includes illustrations and tables.

Hullinger, L. LD has a code number. ACLD Newsbriefs, January-February 1982, 142, 1; 11.

Description of activities which led to learning disability being assigned a Code Number, thus allowing learning disabled people to be legally served by Vocational Rehabilitation agencies.

Kapur, S. Approach to vocational exploration through evaluation of the learning disabled. Paper presented at the Learning Disabilities Regional Information Utilization Institute, RRCEP, George Washington University, Washington, D. C. 1982.

Focuses on the evaluation process and vocational exploration for learning disabled individuals. Discussion refers to a Washington, D. C. Vocational Rehabilitation Services Administration case to demonstrate the conceptual framework of evaluation.

Learning disabled adults -- Update. Information from Heath Resource Center, May 1982, 2(2), 1-2.

Information on directories, programs, and other resources for college students with learning disabilities.

Manner, C. Model project for the development and testing of particular forms of the basic vocational training year for learning disordered and learning disabled adolescents with no contract of apprenticeship (special form) in various occupational fields (functional areas). International Journal of Rehabilitation Research, 1980, 3(2), 239-241.

Report describing a pilot project which is developing and testing various special forms of basic vocational training in Rheinland-Pfalz, Germany. Some relevant preliminary results included.

Mausser, A. J. Assessing the learning disabled: Selected instruments. Rehabilitation Literature, January-February 1982, 43(1-2), 32-33.

Article describes and discusses the merits of a text which includes descriptions of over 400 assessment tests. Includes an historical overview of the development of the term "learning disabled", as well as a glossary and appendixes of sample testing procedure forms.

McCarthy, J. J., & McCarthy, J. F. Learning disabilities. Boston: Allyn & Bacon, 1969.

Reviews for students the theories and status of the field of education for the learning disabled including background, definition, identification, and diagnostic evaluation. Provides a synthesis of various professional points of view and describes prevailing major remedial methods.

McCray, P. Learning assessment in vocational evaluation. Menomonee, WI: University of Wisconsin-Stout, Stout Vocational Rehabilitation Institute, Materials Development Center, 1979, 18 p. (NARIC Call No. 02573)

Publication designed to help vocational evaluators understand the relationship of learning and performance to vocational evaluation; the importance of learning assessment; and the way in which learning assessment can be included in work sample testing.

McCue, M. Neuropsychological assessment and rehabilitation outcome of learning disabled adults (Doctoral dissertation, University of Pittsburgh, 1981). Dissertation Abstracts International, 1982, 43(1), 234B.

A research paper examining the characteristics of learning disabled adults receiving vocational rehabilitation services. Study investigates procedures, the relation of these procedures to outcomes. Also presents some recommendations.

McKay, S., & Brumback, R. A. Relationship between learning disabilities and juvenile delinquency. Perceptual and Motor Skills, 1980, 51(3), 1223-1226.

A discussion of the factors which might predispose learning disabled children toward delinquent behavior. Early detection of learning disability and alternative school programming are proposed as possible methods for prevention.

Miller, C. D., McKinley, D. L., & Ryan, M. College students: Learning

disabilities and services. Personnel and Guidance Journal, 1979, 58, 154-158.

The article describes the problems of three learning disabled college students and the services needed to improve their chances for academic success. Suggestions for working with this population are provided.

Millichap, J. G. (Ed.). Learning disabilities and related disorders: Facts and current issues. Chicago: Year Book Medical Publishers, 1977.

Papers and panel discussion transcripts of a symposium on MBD (minimal brain dysfunction) sponsored by the Institute for Pediatric Service of the Johnson & Johnson Company. Seventeen papers address topics in neurology of learning and behavior, education of the child with MBD, specific learning disabilities and psychological evaluations, and therapy.

Myers, P. I., & Hammill, D. D. Learning disabilities: Basic concepts, assessment practices, and instructional strategies. Austin, TX: Pro-Ed, 1982.

The text provides a comprehensive discussion of learning disabilities. Contents include: evaluation of learning disabilities; broad-based systems for teaching the learning disabled; behavioral approaches to managing disabilities; and biomedical treatments of learning disabilities. Other subjects include a discussion of the major types of learning disabilities as well as remediation of a variety of disabilities. Includes charts, tables, figures and graphs. References and glossary also included.

Notice of Proposed Rulemaking, Assistance to States for Education of Handicapped Children, 41 Federal Register. 52,404-52,407 (1976).

This notice provides a definition for "children with specific learning disabilities" and establishes specific eligibility criteria, diagnostic, and monitoring procedures necessary for states to receive federal assistance.

Ottenbacher, K., Watson, P. J., & Short, M. A. Association between nystagmus hyporesponsivity and behavioral problems in learning-disabled children. American Journal of Occupational Therapy, 1979, 33(5), 317-322.

Results of a study investigating the relationship between learning disabled children with behavioral problems and nystagmus hyporesponsivity.

Patten, J. R., & Polloway, E. A. The learning disabled: The adult years. Topics in Learning & Learning Disabilities, October 1982 ©, 2(3), 79-88.

Article focuses on the need for assessment and intervention for the learning disabled adult. Discusses the growing awareness of present shortcomings in this area and the concerns which need to be addressed.

Patton, P. L. Vocational rehabilitation of the learning disabled client. Proceedings and Resource Guide of the National Short Term Training Project, San Diego, San Diego State University, 1982.

Summary and recommendations from a national conference for short-term training of rehabilitation professionals held July 1981 in Denver, Colorado. Includes topics such as, "Learning Disabilities: Definitions and Characteristics," and "Systems Approach to Rehabilitation of the Learning Disabled." References, conference agenda, participants and faculty listed in Appendices.

Phelps, W. Specific learning disabilities and vocational rehabilitation. State of the art. Charleston, WV: West Virginia Division of Vocational Rehabilitation, 1981, 112 p. (NARIC Call No. 04921)

Monograph which describes the diversity of problems existing among the learning disabled. The present state of service to this group by the West Virginia Division of Vocational Rehabilitation is presented and recommendations are made for improvements in service to eligible specific learning disabled clients.

Polloway, E., Smith, J., & Patten, J. Learning disabilities: An adult development perspective. Learning Disability Quarterly, in press.

Recent developments in theory and research on learning disabled adults are reported to assist in drawing implications for future efforts in research and intervention, and to provide an alternative to prevailing concepts of learning disabilities as childhood disorders persisting into adulthood.

Profiles: An interview with Sam D. Clements. Academic Therapy, 1980, 15(3), 357-367.

An interview with Sam D. Clements, Executive Director, University of Arkansas' child study center. Discusses the history and growth of learning disabilities and indicates there is a burden on special education it will never be able to carry alone.

Ross, A. O. Learning disability: The unrealized potential. New York: McGraw-Hill, 1977, 197 p.

Attempts to define and outline the parameters of learning disabilities as well as to identify creative approaches to treatment. Includes historical background on the field; intelligence and developmental testing programs in use; state-of-the-art summary; and annotated reference section.

Scarpati, S., & Swanson, L. Implicit verbal coding of visual information for normal and learning disabled readers. Perceptual and Motor Skills, 1980, 51(3), 1158.

Results of a study assessing the usefulness of forced verbal encoding in improving visual learning and recall of learning disabled children. Though further study is indicated, these data supported the assumption that forced naming increased retrievability.

Schmidt, M. R., & Sprandel, H. Z. (Eds.). Helping the learning disabled student. San Francisco: Jossey-Bass, 1982.

Problems of identifying and working with learning disabled college students are presented. Includes the impact of disability on social and interpersonal relations, as well as on academic achievement. The role of student services is discussed and emphasis is placed on methods for successfully working with faculty members.

Sheldon, K. L., & Prout, H. An updated survey: Vocational resources for the learning disabled adult. Paper presented at the meeting of the American Educational Research Association, Montreal, Canada, April 1983.

This paper discusses the results of a nationwide study taken in 1981. Vocational rehabilitation agencies were surveyed concerning eligibility and programs for the leaning disabled adult. Includes tables.

Specific learning disabilities: A resource manual for vocational rehabilitation. Pittsburgh: Vocational Rehabilitation Center of Allegheny County, 1983.

Provides background information on learning disabilities including definition, vocational significance, and RSA's current policy. Details the rehabilitation process for specific learning disabled clients. Tests, terms, and resources identified in appendices.

Swanson, L. Comparison of normal and learning disabled children on a nonverbal short-term memory serial position task. Journal of Genetic Psychology, 1978, 133, 119-127.

Report of an investigation comparing recall performance of normal and learning disabled children using two and three dimensional nonverbal shapes. The study also tested Piaget, Inhelder and Gibson's theory that three dimensional objects facilitate correct perceptions and recall. Indicates more experimental research is required in the area of nonverbal deficiencies. References included.

Swanson, L. Conceptual rule learning in normal and learning disabled children. Journal of General Psychology, 1980, 102, 255-263.

Report of a study comparing the problem solving ability of 36 normal and learning disabled children in performance of conceptual-rule tasks. Testing methods, procedures and findings are described. Includes references.

Szuhay, J. A., Newill, B. H., Scott, A. J., Williams, J. M., Stout, J. K., & Decker, T. W. Review of the literature on learning disabilities. In Field Investigation and Evaluation of Learning Disabilities. Scranton: University of Scranton Press, 1980.

Describes the status of the learning disabled adult in the literature; outlines major trends in assessment and programming; and makes recommendations for the development of effective programming. Appendices and references included. Volume 1 of six volumes.

Szuhay, J. A., Newill, B. H., Williams, J. M., Stout, J. K., & Decker, T. W. A national survey of facilities serving adult learning disabled. In Field Investigation and Evaluation of Learning Disabilities. Scranton: University of Scranton Press, 1980.

Survey of a representative sample of service providers to the learning disabled adult. Services evaluated include assessment

evaluation interview, goal oriented treatment plan, counseling, educational remediation, compensation, sensory-motor development, speech and language development, vocational evaluation/work adjustment, vocational counseling and biochemical/nutritional programs. Appendices and references included. Volume 2 of six volumes.

Szuhay, J. A., Newill, B. H., Scott, A. J., Williams, J. M., Stout, J. K., & Decker, T. W. A survey of adult learning disabled clients in Pennsylvania. In Field Investigation and Evaluation of Learning Disabilities. Scranton: University of Scranton Press, 1980.

Survey designed to identify the adult learning disabled population in Pennsylvania who had completed or terminated a regular public education program. Areas covered in the survey were education, medical, social, psychological, vocational and employment and physical abilities. Appendices and references included. Volume 3 of six volumes.

Szuhay, J. A., Newill, B. H., Williams, J. M., Stout, J. K., & Decker, T. W. A proposed model for state vocational rehabilitation agencies' service delivery to the learning disabled. In Field Investigation and Evaluation of Learning Disabilities. Scranton: University of Scranton Press, 1980.

Proposes a model of vocational rehabilitation service delivery to learning disabled adults designed to establish a systematic approach to service delivery. Discusses special assessment and treatment procedures. Designed as a compliment to existing case management procedures. Volume 4 of six volumes.

Szuhay, J. A., Newill, B. H., Williams, J. M., Scott, A. J., & Stout, J. K. Bibliography on learning disability. In Field Investigation and Evaluation of Learning Disabilities. Scranton: University of Scranton Press, 1980.

Alphabetically arranged bibliography on learning disability and related topics. Volume 5 of six volumes.

Szuhay, J. A., Newill, B. H. Implementation and summary notes. In Field Investigation and Evaluation of Learning Disabilities. Scranton: University of Scranton Press, 1980.

Describes the steps involved in testing a model for delivery of vocational rehabilitation services to learning disabled adults.

Summarizes the results of the test. Volume 6 of six volumes.

Vocational rehabilitation process for specific learning disabilities.

Dallas: Texas Rehabilitation Commission, undated.

This position paper, written for rehabilitation professionals working with language/learning disabled clients, addresses the historical background of learning disability, the role of the counselor, and the psychological process. Includes appendices for related issues of behavior and neurology.

Weller, C., & Sipherd, C. The learning disabled woman: Implications for the work force. Journal of Rehabilitation, 1982, 48(4), 67-80.

Paper presents issues surrounding the problems faced by adult learning disabled women. Focus is on the learning disabled woman who enters the work force. Indicates that present guidance and counseling programs are inadequate. Includes references.

Weller, C., & Strawser, S. Detecting learning disabilities in the college-age student. Learning Disability Quarterly, 1980, 3(2), 87-89.

To measure potential learning disabilities in college-age students, the study utilized 20 subtests from a variety of instruments. Results indicate mechanical writing skills are deficient, not language concepts.

White, W. J., Deschler, D., Schumacher, B., Warner, M., Alley, R., & Clark, F. L. The effects of learning disabilities on postschool adjustment. Journal of Rehabilitation, 1983, 49(1), 46-50.

Report on a study comparing personal, social and vocational postschool adjustment of learning disabled and nonlearning disabled young adults. Results of the study and their implications for future research efforts are discussed.

Wolinsky, G. F. Some factors to be considered in early pinpointing of a learning disabled child. Rehabilitation Literature, January 1977, 38(1), 2-4; 15.

Discussion of early identification of learning disabilities in young children. Major emphasis is given to the question of how early one can pinpoint learning difficulties.

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ACKNOWLEDGEMENTS

NARIC extends its sincere appreciation to George A. Engstrom, Project Officer, and Debbie Linzer, Research Assistant, for their consistent support and effective contributions to the REHABILITATION RESEARCH REVIEW project.

NARIC extends its sincere appreciation to the National Council on Rehabilitation Education for their commitment to the REHABILITATION RESEARCH REVIEW project.

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