DOCUMENT RESUME

ED 247 665

EC 162 765

AUTHOR

Browning, Philip; And Others

TITLE

Contemporary Research on the Vocational

Rehabilitation of Persons with Mental Retardation.

Rehabilitation Research Review #14.

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

CONTRACT

300-83-0006

NOTE

67p.

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) -- Reports

- Descriptive (141)

EDRS PRICE DESCRIPTORS

MEO1 Plus Postage. PC Not Available from EDRS.

Delivery Systems; Federal State Relationship; *Mental

Retardation; State Agencies; Trend Analysis;

*Vocational Rehabilitation; *Work Study Programs

ABSTRACT

The report reviews trends of the literature produced mainly between 1970 and 1982 on the vocational rehabilitation of mentally retarded persons. Trends are analyzed in terms of services (vocational assessment and training) and programs (school work-study programs and the state-federal rehabilitation agency). Additional areas of consideration are briefly addressed: Career education, vocational counseling, employer attitudes, social competence, the role of the general caseload counselor, and outcome prediction. Among observations is an emphasis on the vocational needs of severely retarded persons since the passage of the Rehabilitation Act of 1973 and a reminder that the needs of mildly retarded persons must be add sessed as well. The annotated reference list is organized alphabetically by author and includes information on title, source, date, and publisher as well as a brief summary. (CL)



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CONTEMPORARY RESEARCH ON THE VOCATIONAL REHABILITATION OF PERSONS WITH MENTAL RETARDATION

14

Philip Browning, Ph.D.

Mark Litvin

Elizabeth Thorin

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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

Contemporary Research on the Vocational Rehabilitation of Persons with Mental Retardation

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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-theart 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. <u>Introduction to Rehabilitation Research</u>. Springfield, IL: Charles C. Thomas, 1974.

However, this type of synoptic research provides professionals with an opportunity to raffect 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 cosponsorship 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:

- 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 lobbles on behalf of enabling regislation 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.

CONTEMPORARY RESEARCH ON THE VOCATIONAL REHABILITATION OF PERSONS WITH MENTAL RETARDATION

CONTEMPORARY RESEARCH ON THE VOCATIONAL REHABILITATION OF PERSONS WITH MENTAL RETARDATION

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August, 1983

· INTRODUCTION

The purpose of this REHABILITATION RESEARCH REVIEW is to provide an analytical synopsis and annotated reference list of the professional and research literature regarding vocational rehabilitation of persons with mental retardation. By providing an extensive review of the contemporary literature in this topic area, it is hoped this REVIEW will "serve an important role in the integration of studies and translation of results into implications..." (Bolton, 1974, pg. 12). This REVIEW provides an introduction to a profile of the contemporary literature on the subject which is followed by a research review. The annotated reference list serves as an additional resource guide.

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LATERATURE PROFILE

Presented in this section is a synopsis of 13 years of literature on the vocational rehabilitation of mentally retarded people. The types of manuscripts included in the profile are books/monographs, dissertations, and research based journal articles. For the reader who is interested in the literature prior to the 1970's, an annotated bibliography (DeBusk & Luchsinger, n.d.) covering 907 references, is suggested.

Books/Monographs

Manuscripts of this type were essentially nonexistent prior to the 1970's. Within the past 13 years, however, the library shelves have been filled with a number of books (see Table 1) and monographs (e.g., Bellamy, 1976; Bellamy, Horner, & Inman, 1977; Cohen, 1972; Horner & Bellamy, 1980; Karan, 1978; Karan, Wehman, Renzaglia, & Schutz, 1976; and Prehm. 1970).

Dissertations

Doctoral dissertations, which are available in either microfiche or reproduced from University Microfilms International, Ann Arbor, Michigan, represent another important type of manuscript. From 1970 through 1982, 125 dissertations representing 68 different colleges/universities were completed. Table 2 shows that their annual output has been relatively even over the past 13 years.





Table 1

Books Published on the Vocational Rehabilitation of Persons with Mental Retardation (1970-1983)

- Bellamy, G. T., Horner, R., & Inman, D. <u>Vocational habilitation of severely</u> retarded adults. Baltimore: University Park Press, 1979.
- Bellamy, G. T., O'Connor, G., & Karan, O. (Eds.). <u>Vocational rehabilitation of</u> severely handicapped persons. Baltimore: University Park Press, 1979.
- Brolin, D. <u>Vocational preparation of retarded citizens</u>. Columbus, OH: Charles E. Merrill, 1976.

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- Brolin, D., Kokaska, C. <u>Career education for handicapped children and youth.</u>
 Columbus, OH: Charles E. Merrill, Division of Bell & Howell Co., 1979.
- Browning, P. (Ed.). <u>Mental retardation:</u> <u>Rehabilitation and counseling</u>. Springfield, IL: Charles C. Thomas, 1974.
- assessment of the adult retarded for social and vocational adjustment. New York: Teachers College Press, Columbia University, 1972.
- Daniels, L. K. (Ed.). <u>Vocational rehabilitation of the mentally retarded: A book of readings</u>. Springfield, IL: Charles C. Thomas, 1972.
- Gardner, W. I. <u>Behavior modification and mental retardation</u>: A <u>behavior modification approach to the education and rehabilitation of the mentally retarded</u>. Chicago, IL: Aldine Publishers, 1971.
- Mithang, D. <u>Prevocational training for retarded students</u>. Springfield, IL: Charles C. Thomas, 1981.
- Morgenstern, M., & Michael-Smith, H. <u>Psychology in the vocational rehabilitation of the mentally retarded</u>. Springfield, IL: Charles C. Thomas, 1972.
- Rusch, F., & Mithang, D. <u>Vocational training for mentally retarded adults</u>. Champaign, IL: Research Press, 1980.
- Wehman, P. Competitive employment: New horizons for severely disabled individuals. Baltimore: Paul H. Brookes Publishing Co., 1981.
- Wehman, P., & McLaughlin, P. <u>Vocational curriculum for developmentally disabled</u>
 persons. Baltimore: University Park Press, 1980.



Table 2
Dissertations Between 1970 and 1982

Dissertations! Completed!	70	71	72	73	74	7. 75	ear 76	77	78	79	.80	81	82	! ! Total
N	10	7	5	11	6	12	12	8	13	11	14	11	5	! ! 125
%	8	6	4	9	5	10	10	6	10	9	11	9	4	! ! 101 ` !
			_										<u> </u>	!

Journal Articles

Since 1970, 195 research based manuscripts have been published in 26 different United States periodicals (see Table 3). Over half of these articles have appeared in three journals, i.e., American Journal of Mental Deficiency (N = 41); Mental Retardation (N = 37); and Education and Training of the Mentally Retarded (N = 33). Furthermore, 82% of them have been published since 1975. These 160 articles comprise this paper's companion, the Annotated Reference List. It is important to note that this annotated review does not include the many non-data based articles on the subject.



Table 3
Research Based Articles in United States Journals (1970-June, 1983)

	Year													- 14 - 14	
Periodicals	70	71	72	73	74	75	76	77	78	79	80	81	82	83	Total
American Journal of Mental Deficiency	1_	2_	5_	2_	1	2	4_	3	6	1	4_	7_	3_	0_	41
Applied Research in Mental Retardation								,	,		0	2_	2_	0	4
Career Development for Exceptional Individuals			·	Program extensive					1_	2	1_	0	1_	1_	6
Education and Training of the Mentally Retarded	1_	0_	1_	2	1_	3	2_	1	2_	7_	8_	1_	2	2	33
Journal of Applied Behavior Analysis	0		1_	0_	0_	0	0_	0	2	0_	5	0_	0	0_	8.
Journal of the Association for the Severely Handicapped		grange was do widow		-	<i>-</i>	gayan tipak d	2_	2	3	3	2	1_	4_	1_	18_
Mental Retardation	5	2	0	6_	1_	4_	1_	5_	3_	3_	2_	3_	2	0_	37
Rehabilitation Counseling Bulletin	0_	1_	0_	0_	0	0_	1_	0_	0	2_	0_	3	1_	1_	9
Rehabilitation Literature	0_	0_	0_	1_	1_	0_	1_	1	0_	1_	0_	0_	0_	0_	5
Vocational Evaluation and Work Adjustment Bulletin	0	. 0_	0	1_	2_	2	0_	1_	1_	2_	1_	0_	1_	0_	11
Other*	0_	1_	1_	2_	0_	1_	2	2	1	5	5	2_	1_	0_	23
Total	· ₇	6_	8	14	6	12	13	15	19	26	28_	19	17	5	195

^{*}American Journal of Occupational Therapy, American Rehabilitation, Career Education Quarterly, Community Mental Health Journal, Educational and Psychological Measurement, Journal of Applied Rehabilitation Counseling, Journal of Employment Counseling, Journal of Special Educators, Journal of Special Education Technology, Journal for Vocational Special Needs Education, Measurement and Evaluation in Guidance, Perceptual and Motor Skills, Psychological Reports, Training School Bulletin, Vocational Guidance Quarterly, and Welfare in Review.



5

RESEARCH REVIEW

A number of efforts exist integrating and analyzing much of the research literature (Table 4), thus the intent of this section is to highlight the current status of important research areas, e.g., services and programs. The references are an "initial guide" for further inquiry into the respective areas and should be considered as a sample of the germane literature.

Services

The two service areas in which considerable contemporary research exist are: vocational assessment and training. More extensive reviews on these services are available elsewhere (e.g., Browning & Irvin, 1981; Peck, Apollini, & Cooke, 1981). Placement is not included since many of the data based efforts in this area have been of a program evaluation versus research nature.

Vocational Assessment During the 1970's tests for assessing the vocational behavior of mentally retarded persons were developed. A practical guide provides identification and description for 23 of the best and most appropriate instruments for use with this population. This resource (Halpern, Lehmann, Irvin, & Heiry, 1982) includes an evaluation of the instruments according to their content focus, psychometric properties, and application in terms of client assessment, program planning, monitoring, and evaluation.



Table 4

Select Research Reviews

1960's

- Goldstein, H. Social and occupational adjustment. In H. A. Stevens, & R. Heber (Eds.). Mental Retardation: A Review of Research. Chicago: The University of Chicago Press, 1964, 214-258.
- Wolfensberger, W. Vocational preparation and occupation. In H. A. Baumeister (Ed.). Mental Retardation: Appraisal, Education, and Rehabilitation. Chicago: Aldine Publishing Company, 1967, 232-273.

1970's

- Bellamy, G. T., Inman, D., & Schwarz, R. Vocational training and production supervision: A review of habilitation techniques for the severely and profoundly retarded. In N. Haring & D. Bricker (Eds.). Teaching the Severely and Profoundly Handicapped (Vol. III). Columbus, OH: Special Press, 1978, 201-222.
- Gold, M. W. Research on the vocational rehabilitation of the retarded: The present, the future. In N. R. Ellis (Ed.). <u>International Review of Research in Mental Retardation</u> (Vol. 6). New York: Acauemic Press, 1973.
- Halpern, A. S., Browning, P. L., & Brummer, E. R. Vocational adjustment of the mentally retarded. In M. J. Begab & S. A. Richardson (Eds.). The Mentally Retarded and Society: A Social Science Perspective. Baltimore: University Park Press, 1975, 365-376.

1980's

- Browning, P., & Irvin, L. K. The vocational evaluation, training and placement of mentally retarded persons: A research review. Rehabilitation Counseling Bulletin, 1981, 25, 374-408.
- Peck, M. A., Apolloni, T., & Cooke, T. P. Renabilitation services for Americans with mental retardation: A summary of accomplishments in research and program development. In E. L. Pan, T. E. Backer, & C. L. Vash (Eas.).

 Annual Review of Rehabilitation. New York: Springer Publishing Company, 1981, 1-33.
- Rusch, F. R., & Schutz, R. P. Vocational and social work behavior: An evaluation review. In J. L. Matson, & J. R. McCartney (Eds.). <u>Handbook of Behavior Modification with the Mentally Retarded</u>. New York: Plenum Press, 1981, 247-280.



Another major contribution to emerge during this period pertains to what is now commonly referred to as the "contemporary" assessment model. Contemporary assessment refers to:

those practices which clearly link the purposes and outcomes of assessment with the goals and techniques of instruction and other forms of service intervention. Traditional assessment, on the other hand, is viewed as a practice whose primary intent, at least in the field of mental retardation, has been to level and classify people, often for the purpose of determining their eligibility to receive benefits from a service program. (Halpern, Lehman, Irvin, & Heiry, 1982, p. 1)

Vocational assessment has historically focused only on the products of past learning in order to determine what a person can do, rather than to find out what is required in order to guarantee success. Contrasted with the traditional approach, which measures the products (e.g., aptitude, ability) of prior learning, the primary purpose of "contemporary" assessment is to acquire information that has direct implications for methods of training. Several resources which address this functional approach to assessment, its implications for mentally retarded persons in relation to vocational services, as well as other evaluation considerations include Browning and Irvin, 1981; Halpern, Irvin, & Lehmann, 1979; Karan, 1977; Menchetti, Rusch, & Owens, in press; and Schalock & Karan, 1979.

<u>Vocational Training</u> Largely through longitudinally based research programs, there now exists a body of sophisticated knowledge regarding

the application of behavioral technology in the vocational training of severely retarded persons. The cumulative results of the extensive programmatic research efforts in this area yield an overriding conclusion: With the proper utilization of behavioral technology, even moderately and severely retarded people can be vocationally trained to perform at levels which far exceed the expectations we held as recently as ten years ago.

examples of training related manuscripts prepared by them include the now deceased Dr. Marc Gold who was at the University of Illinois (e.g., Gold, 1973); Dr. Orv Karan at the University of Wisconsin (e.g., Karan, 1978): Dr. Thomas Bellam, at the University of Oregon (e.g., Bellamy, Horner, & Inman, 1979); and Dr. Frank Rusch at the University of Illinois at Urbana-Champaign (e.g., Rusch & Mithang, 1980).

Programs

The two major vocational programs included in this section are school work-study programs and the state-federal rehabilitation agency. Rehabilitation facilities are not covered since much of the vocational training research referred to above has been conducted in workshop settings and thus are covered in that literature. For those specifically interested in workshop settings, the authors strongly recommend the national study (Greenleigh Associates, 1975) on sheltered workshops for severely disabled persons.



Work-Study programs Work-study programs for mentally retarded youth have had a history of more than 20 years. During this period, they have received strong support as being an important means through which to enhance the habilitation process and thus more effectively prepare mentally retarded students for their eventual entry into the world of work.

There has been some research attention since 1970 which has addressed the process and impact of these programs (e.g., Bensberg & Ashby, 1981; Brimer & Rouse, 1978; Bullis & Foss, 1983; Chaffin, Spellman, Regan, & Davison, 1971; Flanigan, Pfeifer, & Allen, 1974; Halpern, 1974; Margalit & Schuchman, 1978; Muth & Singell, 1975. Sigelman, Flexer, Spanhel, & DeSanctis, 1979; and Tobias, 1970). Even though there are mixed findings reported from these efforts, one can conclude from the cumulative results that the work-study programs have had, at the very least, a moderate impact.

State rehabilitation agency Much of the research conducted on mentally retarded persons served through this program has been directed toward client characteristics and patterns of services (e.g., Elo & Herdel, 1972; Flanigan, Pfeifer, & Allen, 1974; Melton, 1971; and Walls, Tseng, & Zarin, 1976). One of the more important and impressive statistics of this program is the number of mentally retarded clients successfully rehabilitated through it. Specifically, the number of retarded clients placed in "Status 26" rose from 175 in 1946, to 34,652 in 1979. These figures represent .05% of the total number of rehabilitated persons in 1946 and 12.1% of the total number of

rehabilitated persons in 1979. Finally, over 500,000 mentally retarded clients were placed on jobs through the state vocational rehabilitation agencies between the years 1945 and 1979. Of these, approximately 70% were rehabilitated during the decade of the 70's. This and other types of program impact indices with this client group have been addressed elsewhere (e.g., Browning & Brummer, 1974).

Other Areas of Consideration

rehabilitation of retarded people, it is not surprising that at least some research attention has been directed to other areas, e.g., career education, vocational counseling, and employer attitudes. The three additionally important topics include work related social competence, the rehabilitation counselor or practitioner, and the prediction of successful vocational outcomes.

Social competence A long standing position among practitioners in the field is that poor social skills attribute to many work maladjustments of mentally retarded people. Furthermore, literature reviews (e.g., Niziol & DeBlassie, 1972) and studies (e.g., Foss & Bostwick, 1981) tend to confirm this conclusion.

within the past several years this area has begun to attract some research attention (e.g., Bullis, 1983; Foss & Peterson, 1981; Greenspan & Shoultz, 1981; Greenspan, Shoultz, & Weir, 1981; Matson & Martin, 1979; Ostby, 1982; Rusch, 1979; and Vilhauer, 1983). Continued research toward the development of assessment instruments and related training



programs should be of vital importance in helping to effect the successful employment of mentally retarded workers.

The practitioner There exists extensive research on the role and function of the general caseload rehabilitation counselor. However, there has been a paucity of effort to study rehabilitation counselors who serve mentally retarded clients. Since 1970, only three studies have been conducted in this area, i.e., Carter. 1972; English, Oberle, & Byrne, 1979; and Parham, 1979. The paucity of studies appears especially surprising since individuals with mental retardation rank third in size of disability groups served by the agency. Research that will contribute to an increased understanding of the unique responsibilities and skills necessary to adequately serve mentally retarded populations may be all the more important considering the current shortage of practitioners to serve disabled people.

Outcome prediction Much of the earlier research was devoted to studies designed to determine a predictive formula for the successful personal, social, and vocational outcome of mentally retarded adolescents and adults. Unfortunately, the collective results of these efforts have proved to be of little practical value. The reader is referred to Butler and Browning (1974), Cobb (1972), and Gold (1973) for a critical review of such prognostic studies and their methodological problems.



OBSERVATIONS AND RECOMMENDATIONS

A number of specific recommendations on the vocational rehabilitation of mentally retarded people are available through other state-of-the-art research reviews (Table 4). Rather than reiterating them, the authors have chosen to articulate a more generic issue here, which is the level of mental retardation for which much vocational research with this population has been directed.

The 1973 Rehabilitation Act specified severely disabled persons as a national priority for the vocational rehabilitation system. This focus has had definite implications for mentally retarded persons in that considerable attention has been given to the vocational needs of severely retarded populations.

This swing in the pendulum toward an emphasis on vocational considerations of severely retarded persons has been of such a magnitude that concerns have been raised regarding exclusion of mildly retarded persons from our national efforts. For example, the President-elect of the American Association on Mental Deficiency recently stated, "By all means, let us maintain interest and investment in severely and protoundly retarded individuals. At the same time, let us rediscover mild and moderate mental retardation and invest in those levels of renewed research Interest..." (Haywood, 1979, p. 431).

while the vocational research efforts toward severely retarded persons relate to a much neglected segment of mentally retarded populations and thus are to be commended, we must not lose sight of the



retarded persons. This disabled population epresents by far the largest proportion of persons labelled mentally retarded. In essence, the need to return some of our research attention to these individuals has definite implications for the vocational rehabilitation service delivery program, since it is designed to focus primarily on them rather than severely retarded clients.

- Bellamy, G. T. (Ed.). <u>Habilitation of severely and profoundly retarded</u>
 <u>adults</u>. Eugene, OR: University of Oregon, Rehabilitation Research
 and Training Center in Mental Retardation, 1976.
- Bellamy, G. T., Horner, R., & Inman, D. <u>Habilitation of severely retarded adults</u> (Vol. 11). Eugene, OR: University of Oregon, Rehabilitation Research and Training Center in Mental Retardation, 1977.
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- Browning, P., & Brummer, E. Rehabilitating the mentally retarded: An overview of federal-state impact. In P. Browning (Ed.). Mental Retardation: Rehabilitation and Counseling. Springfield, Illinois: Charles C. Thomas, 1974.
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- Haywood, H. C. What happened to mild and moderate mental retardation?

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ANNOTATED REFERENCE LIST



CONTEMPORARY RESEARCH ON THE VOCATIONAL REHABILITATION OF PERSONS WITH MENTAL RETARDATION

ANNOTATED REFERENCE LIST

Alper, S., & Retish, P.M. The influence of academic information on teachers' judgments of vocational potential. <u>Exceptional Children</u>, 1978©, 44(7), 537-538.

Investigation to determine the extent teachers are influenced by academic information in judging vocational potential of retarded persons.

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Andriano, T. A. The volunteer model of vocational habilitation as a component of the deinstitutionalization process. Mental Retardation, 1977, 15(4), 58-61.

Presents a demonstration of a model where five mentally retarded adolescents and adults served as community volunteers within a nonprofit organization. Emphasis on the model as a component of the deinstitutionalization process and vital link between large residential facilities and community settings.

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Bates, P., Renzaglia, A., & Clees, T. Improving the work performance of severely/profoundly retarded young adults: The use of a changing criterion procedural design. Education and Training of the Mentally Retarded, 1980, 15(2), 95-104.



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Becker, R. L. Job training placement for retarded youth: A survey. .

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Results of a survey involving 40 work-study coordinators from 12 states and the District of Columbia who reported on assignments of 1,438 mentally retarded trainees to jobs in various industries. Largest single job placement was janitorial training, followed by training for dishwashers and bus boys/girls.

Becker, R. L., Schull, C., & Campbell, K. Vocational interest evaluation of TMR adults. <u>American Journal of Mental Deficiency</u>, 1981, 85(4), 350-356.

Five-year, three-stage job training and placement program for 50 trainable mentally retarded (TMR) adults. Correlations were made regarding vocational inventoried interest and expressed interest, and relationships between inventoried interest and such variables as chronological age and 10.

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Bellamy, G. T., Peterson, L., & Close, D. Habilitation of the severely and profoundly retarded: Illustrations of competence. Education and Training of the Mentally Retarded, 1975, 10(3), 174-186.



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Presentation of examples of work tasks currently performed by severely and profoundly retarded adults. Emphasis on vocational abilities and successful training and supervision procedures.

Bellamy, G. T., & Snyder, S. The trainee performance sample: Toward the prediction of habilitation costs for severely handicapped adults. American Association for the Education of the Severely/Profoundly Handicapped Review, 1976, 1(4), 17-36.

Discussion of the Trainee Performance Sample (TPS), a measure which samples behavior in a vocational training situation to facilitate time and cost requirement predictions for teaching industrial assembly skills to severely retarded institutionalized adults.

Bender, M. Teaching through imitation: Industrial education for the moderately and severely retarded. Education and Training of the Mentally Retarded, 1978, 13(1), 16-22.

Analysis of effect on behavior of moderately and severely mentally retarded children of employing visual-imitative instructional method in teaching Industrial Education Psychomotor Tasks.

Bensberg, G. J., & Ashby, S. Cooperative occupational preparation of the handicapped: Exemplary models. <u>American Rehabilitation</u>, 1981, 6(6), 18-22;27. (NARIC Call No. J0106)

Reports findings of study of exemplary model programs that demonstrated cooperation among vocational education, vocational rehabilitation, and special education. Discusses common characteristics, program results, personnel preparation, community and business involvement, and interagency cooperation of 10 selected models. Complete study report available from Texas Tech University Research and Training Center in Mental Retardation.

Berkson, G. Social ecology of supervised communal facilities for mentally disabled adults: Residence as a predictor of social and work adjustment. American Journal of Mental Deficiency, 1981, 86(1), 39-42.

Results of a comparison of work performance and social behavior in sheltered workshops of matched groups of mildly mentally retarded adults living with their families, independently, or in sheltered care homes. Results indicate residential placement does not strongly correlate with productivity or sociability. References included.



Brickey, M. Dexterity test utilization with moderately and severely retarded workshop employees. <u>Vocational Evaluation and Work Adjustment Bulletin</u>, 1982, 15(1), 15-18.

Study of how dexterity tests, IQ, and Bender Gestalt rel te to training time speed, and accuracy in workshop employees whose mean IQ is 35. Discussion of training and job selection implications.

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Job placement histories of 18 to 57-year-old sheltered workshop employees with IQs of 27 to 101 placed in Projects with Industry (PWI) or competitive jobs in 1978. Job variables such as structure and alternatives to individual placement are discussed. References included.

Brickey, M., & Campbell, K. Fast food employment for moderately and mildly retarded adults: The McDonald's project. Mental Retardation, 1981, 19(3), 113-116.

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Brimer, R., & Rouse, S. Post-school adjustment: A follow-up of a cooperative program for the educable mentally retarded. <u>Journal for Special Educators of the Mentally Retarded</u>, 1978, <u>14</u>, 131-137.

Report of a joint, cooperative vocational training program between Richland County School District Number One and the South Carolina Department of Vocational Rehabilitation. The project followed-up on 30 educable mentally retarded men and women one to five years after leaving school.

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Follow-up study of educable retarded students. Relatively better vocational adjustment found in students having more work-study



orientation. Recommends career education programs at secondary

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Review of research on vocational assessment instruments for evaluation of mentally retarded students. Suggests meaningful evaluation procedures for mentally retarded students may be developed by school psychologists working working with vocational and special educators.

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Reviews research pertaining to mentally retarded individuals and work, particularly programmatic research on vocational evaluation, training, and placement conducted in the 1970s. Discussion of traditional as well as contemporary evaluation methods.

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National survey of vocational rehabilitation agencies conducted to determine present status of cooperative work-study programs serving mentally retarded secondary students. Results document decrease in both formal programs and number of students served.

Carsrud, A. L., Carsrud, K. B., Dodd, B. G., Thompson, M., Gray, W. K. Predicting vocational aptitude of mentally retarded persons: A comparison of assessment systems. American Journal of Mental Deficiency, 1981, 86(3), 275-280.

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Cegelka, P. T. Sex role stereotyping in special education: A look at secondary work study programs. Exceptional Children, 1976, 42(6), 323-328.

Examines special education practices in secondary work-study programs for mentally retarded students. Sex bias favoring males revealed.

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Mental Retardation, 1970, 8(4), 41-44.

Statistical analysis of vocational, intellectual, social, and emotional adjustment of 29 adolescent and adult retardates in relation to selected biographical and objective test data.

Clarke, J. Y., Greenwood, L. M., Abramowitz, D. B., & Bellamy, G. T. Summer jobs for vocational preparation of moderately and severely retarded adolescents. <u>Journal of the Association for the Severely Handicapped</u>, 1980, 5, 24-37.

Reports on training program combining an instruction in natural environment skills with CETA services which provides fully paid community-based work experiences to moderately and severely disabled high school students.

Close, D. W., Irvin, L. K., Prehm, H. J., Taylor, V. E. Systematic correction procedures in vocational-skill training of severely retarded individuals. American Journal of Mental Deficiency, 1978, 83(3), 270-275.

Comparisons of the effects of various types of verbal correction and systematic physical correction procedures on severely retarded adults taught a vocational assembly-skill task requiring difficult visual-motor discrimination. Results indicate relative efficacy of each procedure.

Cohen, C., Bonfield, R., Drugo, J., Vandervaar, W., & Wiegman, P. The Singer Vocational Evaluation System with an educable mentally retarded population. Mental Retardation, 1975, 13(6), 31.

Describes a project of the Conroy Center, Pittsburgh, PA, and involving the public school system's use of SVES with mentally retarded high school students who had low reading levels.

Cohen, C., & Drugo, J. Test-retest reliability of the Singer vocational evaluation system. <u>Vocational Guidance Quarterly</u>, 1976, 24(3), 267-270.

Evaluation of the reliability of the Singer Vocational Evaluation System (SVES) to measure vocational aptitudes, interests, and work attitudes among educable mentally high school students.

Cohen, M. E., Close, D. W., Retarded adult's discrete work performance in a sheltered workshop as a function of overall productivity and motivation. American Journal of Mental Deficiency, 1975, 79(5), 526-529.

Analysis of high and low production times of 12 retarded adults in a sheitered workshop. Results address cognitive versus motivational interpretations of individual work performance.

Colemen, A. E., Ayoub, M. M., & Friedrich, D. W. Assessment of the physical work capacity of institutionalized mentally retarded males.

American Journal of Mental Deficiency, 1976, 80(6), 629-635.

Physical work capacity of educable/trainable mentally retarded males was found 20-30% below capacity cited in literature for nonretarded subjects of similar age and sex. Study suggests need for developmental and maintenance programs of physical fitness for subjects to improve employability.

Cormany, R. B. A careens unit for the junior high EMR student.

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Conclusions following a ten-lesson careers unit conducted with 46 junior high school educable mentally retarded students. Student attitudes as revealed in a post-unit questionnaire indicated increased realism while maintaining fairly constant pattern of interests.

Crain, E. J. Socioeconomic status of educable mentally retarded graduates of special education. Education and Training of the Mentally Retarded, 1980, 15(2), 90-94.

Investigation of economic status of 130 educable mentally retarded graduates of special school district. Variables examined were age, sex, race, IQ, and vocational training.



Crapps, J., Kregel, J., & Stoneman, Z. Reinforcing moderately and severely retarded students for on-task behavior and production rate:

A comparison during two tasks of varying complexity. Career

Development for Exceptional Individuals, 1983, 6(1), 31-42.

Investigation into efficacy of incorporating simulated work activity into career development programs for moderately and severely retarded persons. Results suggest direct reinforcement for completed products is more effective in increasing production than general reinforcement for on-task behavior.

Cunningham, T., & Presnall, D. Relationship between dimensions of adaptive and sheltered workshop productivity. American Journal of Mental Deficiency, 1978, 82(4), 386-393.

Factor analysis on 24 domains of the American Association on Mental Deficiency Adaptive Behavior Scale using 217 adult retarded workshop clients. Concludes adaptive behavior is a multidimensional variable having substantial effect on sheltered workshop productivity.

Cuvo, A. J., Leaf, R. B., & Borakove, L. S. Teaching janitorial skills to the mentally retarded: Acquisition, generalization and maintenance. Journal of Applied Behavior Analysis, 1978, 11(3), 345-355.

Task analysis of janitorial skills required to clean a restroom.

DeCsipkes, R. A., & Rowe, W. The influence of residential settings on coational interests of the mentally retarded. <u>Vocational</u>
Guidance Quarterly, 1976, 25(1), 60-64.

Study to examine if the residence, institution or community influence the direction and/or realism of the vocational interests among mentally retarded individuals

Dietrich, D. Vocational mainstreaming for educable mentally retarded students. <u>Career Development for Exceptional Individuals</u>, 1980, 3(2), 101-108.

Feasibility study of vocational mainstreaming for educable mentally retarded (EMR) students involving 45 EMR high school students. Results indicated EMR students' work adjustment significantly lower than that of normal students. Study emphasizes need for prevocational preparation and adequate support personnel.

Drugo, J., & Cohen, C. Utilization of the RFVII with an EMR population.

Mental Retardation, 1977, 15(3), 46-47.

Discussion of results and administration of the Reading-Free Vocational Interest Inventory (RFVII) to ninth grade EMR students in the Pittsburgh Public School System.

Flexer, R. W., Bihm, E., Shaw, J., Sigelman, C. K., Raney, B., & Jansson, D. Training and maintaining work productivity in severely and moderately retarded persons. Rehabilitation Counseling Bulletin, 1982©, 26(1), 10-17. (NARIC Call No. J1520)

Study to test effectiveness of goal-setting techniques in training moderately and severely mentally retarded individuals to improve and maintain productivity. Twenty institutionalized school-age students purticipated in training for remunerative work.

Flexer, R. W., Martin, A. S., & Friedenberg, W. P. Increasing the productivity of the severely retarded with monetary reinforcement: Developing a work ethic. Mental Retardation, 1977, 15(6), 44.

Rise in production over baseline resulted when monetary reinforcement was introduced into production conditions of eight severely retarded clients trained to assemble ball-point pens.

Flexer, R. W., Martin, A. S., Friedenberg, W. P., & Justice, D.
Increasing the work tolerance of severely retarded persons through a work adjustment training program. <u>Vocational Evaluation and Work Adjustment Bulletin</u>, 1978, <u>11</u>(2), 22-30.

Group training program for disruptive nonproductive severely retarded persons in a sheltered workshop demonstrated severely retarded persons can be trained to work without disruptive behavior. The program alternated the physical environment, gradually lengthened work periods, and reinforced desired behavior.

Flexer, R. W., Martin, A. S., Newbery, J. F., Raney, B. J., & Sigelman, C. K. Long and short-range goals in work adjustment training of mentally retarded persons. Vocational Evaluation and Work Adjustment Bulletin, 1980, 13(2), 46-49. (NARIC Call No. 03854)

Summarizes study where two groups of mentally retarded clients saved money for a shopping trip. One group was assigned short-range monetary goals while the other was assigned long-range monetary goals. Examines effect of differences in feedback on goal

attainment and implications for work adjustment training programs.

Flexer, R. W., Newberry, J. F., & Martin, A. S. Use of goal setting procedures in increasing task assembly rate of severely retarded workers. Education and Training of the Mentally Retarded, 1979, 14, 177-184.

Report on exploratory attempt to train 14 severely retarded, individuals to internalize a "work ethic" as an alternative approach to training productive capacity. The study also looked at the contribution of daily assigned performance goals in the long range goal setting process and the associated reinforcements.

Flexer, R. W., Sigelman, C. K., DeSanctis, M., & Danker-Brown, P.

Relationships of IQ to experiences and adjustment in work-study programs for handicapped youth. Rehabilitation Counseling Bulletin, 19790, 23, 15-23.

Study of 177 handicapped students in 68 work study programs in Texas to explore through questionnaire, test, and rating data the relationships among IQ, services received, and functioning just prior to graduation.

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Flynn, R. J. Mental ability, schooling and early career achievement of low-IQ and average-IQ young men. American Journal of Mental Deficiency, 1980, 84(5), 431-443.

Results of investigation of the relationship among mental ability, schooling, and early career achievement of low- and average-IQ young men showed substantial differences between the subject groups on several variables but that the effects of determinants of career attainment and status attainment theory applied equally.

Foss, G., & Bostwick, D. Problems of mentally retarded adults: A study of rehabilitation service consumers and providers. Rehabilitation Counseling Bulletin, 1981©, 25(2), 66-73. (NARIC Call No. J1138)

Investigation to identify and order current problems of mentally retarded adults in rehabilitation settings. Includes statements on employment, community living, and social relationship issues by mentally retarded individuals as well as service-providing individuals.

Foss, G., & Peterson, L. Social-interpersonal skills relevant to job tenure for mentally retarded adults. Mental Retardation, 1981, 19(3), 103-106.

Survey of 64 job placement personnel in sheltered workshops in 11 western states identifying social-interpersonal behavior areas most relevant to job tenure for mentally retarded adults.

Friedenberg, W. P., & Martin, A. S. Prevocational training of the severely retarded using task analysis. Mental Retardation, 1977, 15(2), 16-20.

Training of two severely retarded students to perform a task requiring multiple, multidimensional discrimination using two procedures to accomplish the task. Recommendation is made for indepth analysis of tasks before instituting training programs.

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Fulton, R. W. Job retention of the mentally retarded. Mental Retardation, 1975, 13(2), 26.

Study of 55 mentally retarded subjects placed in competitive employment. Results indicate secondary emotional disability develops in subjects unsuccessful in their initial placements. Six or more months retention of placement considered "success".

Gannaway, T. W., & Sink, J. M. A summary of research relating to the use of an audiovisual-instruction-based worksample program with educable mentally retarded students. <u>Journal for Vocational Special Needs Education</u>, 1981, 3(3), 24-26.

Summary of research on Vocational Evaluation System (VES) with secondary mildly mentally retarded students. Concludes VES is appropriate for and acceptable to the students.

Gola, T. J., Holmes, P. A., & Holmes, N. K. Effectiveness of a group contingency procedure for increasing prevocational behavior of profounding mentally retarded residents. Mental Retardation, 1982, 20(1), 26-29.

Study involving training of four profoundly mentally retarded middle-aged residents of a state institution Behavioral Problems Program. The program was set up to work on prevocational tasks using a group contingency procedure.

Gold, M. W. Task analysis of a complex assembly task by the retarded blind. Exceptional Children, 19760, 43(2), 78-84.

Description of a system of task analysis. Discusses general potential of the system and implications for training the severely handicapped.

Gordon, R. A. The effect of sheltered work adjustment training on vocational sophistication of educable retarded adolescents.

Vocational Evaluation and Work Adjustment Bulletin, 1975, 8(4), 9-20.

Study of the effectiveness of a 20-week adjustment training program for increasing vocational sophistication of male and female educable mentally retarded adolescents in a sheltered workshop. Concludes work-study cooperative projects between special education programs and vocational training facilities may provide maximum vocational preparedness and sophistication.

Greenspan, S., & Shoultz, B. Why mentally retarded adults lose their jobs: Social competence as a factor in work adjustment. Applied Research in Mental Retardation, 1981, 2(1), 23-38.

Study of reasons for involuntary termination from competitive employment of 30 mildly and moderately mentally retarded individuals. Results support hypotheses that (1) social incompetence contributes at least as much to job failure as nonsocial elements, and (2) low social awareness appears to be the most frequent factor contributing to termination because of social incompetence (interpersonally inept behavior).

Greenspan, S., Shoultz, B., & Weir, M. M. Social judgment and vocational adjustment of mentally retarded adults. <u>Applied Research in Mental Retardation</u>, 1981, 2(4), 335-346.

Results of two studies involving vocational evaluation and adjustment among mentally retarded, physically disabled, and mentally ill adults. Results suggest vocational rehabilitation professionals should pay more attention to social judgment level as a significant contributor to work success of mentally retarded adults.

Gruenhagan, K. A. Attitudes of fast food restaurant managers toward hiring the retarded: A survey. <u>Career Development for Exceptional Individuals</u>, 1982, <u>Fall(5)</u>, 98-105.



Study was designed to test the hypotheses that employers attitudes toward mentally retarded persons become more positive as the level of prior experience with mentally retarded persons increases. Results provide suggestions to schools for developing programing to enhance employability of mentally retarded students.

Hall, C., Sheldon-Wildgen, J., & Sherman, J. A. Teaching job interview skills to retarded clients. <u>Journal of Applied Behavior Analysis</u>, 1980, 13(3), 433-442.

Instruction of six retarded adults in basic job application and interview skills including introducing self, filling out forms, answering questions, and asking questions.

Halpern, A. S., Raffeld, P., Irvin, L., & Link, R. Measuring social and prevocational awareness in mildly retarded adolescents. <u>American Journal of Mental Deficiency</u>, 1975, 80(1), 81-89.

Overview of the Social and Prevocational Information Battery, an instrument to measure strengths and weaknesses of educable mentally retarded students, developed by the Research and Training Center in Mental Retardation at the University of Oregon.

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Heiler, T., Berkson, G., & Romer, D. Social ecology of supervised communal facilities for mentally disabled adults: VI. Initial social adaptation. American Journal of Mental Deficiency, 1981, 86(1), 43-49.

Observation of the social adaptation of mentally disabled adults introduced into new vocational rehabilitation settings. Influences on client sociability are discussed.

Hill, M., & Wehman, P. Cost benefit analysis of placing moderately and severely handicapped individuals into competitive employment.

Journal of the Association for the Severely Handicapped, 1983, 8(1), 30-38.

Analyzes costs and savings of taxpayers over four years for a successful job training and placement program.

Hill, J. W., Wehman, P., & Pantecost, J. Developing job interview skills in mentally retarded adults. Education and Training of the Mentally Rétarded, 1980, 15(3), 179-186.

Job inferview training program for moderately retarded adults. Employing a changing criterion design, the job placement staff demonstrated that mentally retarded clients can acquire the appropriate behaviors for interviews through prosocial systematic instruction.

Horner, R. J., Lahren, B., Schwartz, T. P., O'Neill, C. T., & Hunter, J. D. Dealing with the low production rates of severely retarded workers. AAESPH Review, 1979, 4, 202-212.

Describes two studies each using a different reinforcement method to test which increased low production rates of severely retarded workers in a sheltered workshop. Discusses implications of the results.

Horner, R. H., & McDonald, R. S. Comparison of single instance and general case instruction in teaching a generalized vocational skill.

Journal of the Association for the Severely Handicapped, 1982, 7(3), 7-20.

Comparison of the relative effectiveness of two instructional strategies for teaching severely disabled high school students to crimp/cut biaxle capacitors. General case training proved more successful than single instance training.

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Horner, R. H., Wuerch, B. B., & Boomer, J. D. Performance of three severely mentally retarded adults on vocational response chains during extinction. American Journal of Mental Deficiency, 1981, 86(1), 97-103.

Analysis of intrachain performance patterns of three severely retarded adults under continuous reinforcement and extinction schedules. Data indicated overall chain performance slowed during extinction due to reduced response speed in early steps of the chain. Vocational habilitation implications for retarded adults addressed.

Hughes, M. J., & Hardman, E. Adaptive functioning in the home and workshop. Rehabilitation Literature, 1977@, 38(6/7), 196-201.

Study of the effectiveness of an assessment and training instrument in a sheltered workshop for mentally retarded adults.



Hull, M., & Halloran, W. The validity of the Nonreading Aptitude Test Battery for the mentally handicapped. <u>Educational and Psychological</u> Measurement, 19760, 36, 547-552.

Study demonstrating the mean number of Occupational Aptitude
Patterns (OAPs) generated for a sample of 140 mentally retarded and
borderline intelligence students was significantly greater for the
NATB than for the General Aptitude Test Battery (GATB).

Irvin, L. K. General utility of easy-to-hard discrimination training procedures with the severely retarded. Education and Training of the Mentally Retarded, 1976, 11(3), 247-250.

Systematic investigation of applicability of easy-to-hard discrimination training procedures for teaching a difficult visual discrimination assembly task to severely retarded individuals.

Irvin, L. K., & Bellamy, G. T. Manipulation of stimulus features in vocational-skill training of severely retarded individuals.

American Journal of Mental Deficiency, 1977, 81(5), 486-491.

Study of three groups of severely retarded adults trained in one of three techniques to perform a difficult visual discrimination in an assembly task. Results suggest substantial differences in efficacy among vocational-skill training procedures involving manipulation of stimulus features.

irvin, L. K., Gersten, R., Bellamy, G. T., Taylor, V., & Close, D. Vocational skill assessment of severely retarded adults. <u>American Journal of Mental Deficiency</u>, 1981, 85(6), 631-638.

Focuses on the development and refinement of a vocational skill assessment instrument for severely retarded adults. The "Trainee Performance Sample" was revised to improve validity and utility in vocational skill learning placement of severely retarded persons.

Prevocational Information Battery for mildly retarded individuals.

American Journal of Mental Deficiency, 1977, 81(6), 603-605.

Evaluation of the Social and Prevocational Information Battery for educable mentally retarded individuals with samples other than those for which the battery was developed.



prevocational awareness in mildly and moderately retarded individuals. American Journal of Mental Deficiency, 1977, 82(3), 266-272.

Study focused on the development of an assessment strategy and set of assessment tools to measure the level of knowledge of mildly and moderately retarded adolescents and adults in several social prevocational areas important to community living.

Johnson, J. L., & Mithaug, D. E. A replication of sheltered workshop entry requirements. <u>AAESPH</u> Review, 1978, <u>3</u>, 116-122.

Repeated the Mithaug & Hagmeier, 1978 survey which identified sheltered workshop entry requirements. Results indicated that between states and regions there are reliable entry requirements for sheltered employment.

Johnson, N., Flowers, A., & Johnson, S. C. A career awareness program for educable mentally retarded students. <u>Vocational Guidance</u> Quarterly, 1980, 28(4), 328-334.

investigation of ability of a counselor trainee with no formal training in working with educable mentally retarded students to adjust procedures and commercial career education materials to help mentally retarded students develop career awareness. Results indicate most counselors simply need to develop creative current skills rather than seeking special training. Benefits of career awareness program to mentally retarded students also discussed.

Karan, O. C., Bernstein, G. S., Harvey, J., Bates, P., Renzaglia, A., & Rosenthal, D. An extended evaluation model for severely handicapped persons. AAESPH Review, 1979, 4, 374-398.

Describes an extended evaluation model providing a close and interactive link between evaluation and treatment.

Karlan, G. R., & Rusch, F. R. Analyzing the relationship between acknowledgement and compliance in a nonsheltered work setting.

<u>Education and Training of the Mentally Retarded</u>, 1982, 17(3), 202-208.

Examination of the relationship between acknowledgement and compliance in work performance of two moderately retarded adults.

Katz, S., Goldberg, J., & Shurka, E. The use of operant techniques in teaching severely retarded clients work habits. Education and Training of the Mentally Retarded, 1977, 12(1), 14-20.

Four severely retarded clients participated in a special training program based on operant conditioning techniques. Three subjects successfully completed training, overcoming previous inability to adapt to work requirements in a sheltered workshop.

Kelly, J. A., Wildman, B. G., & Berler, E. S. Small group behavioral training to improve the job interview skills repertoire of mildly retarded adolescents. <u>Journal of Applied Behavior Analysis</u>, 1980, 13(3), 461-471.

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Konczak, L. J., & Johnson, C. M. Reducing inappropriate verbalizations in a sheltered workshop through differential reinforcement of other behavior. Education and Training of the Mentally Retarded, 1983, 18(2), 120-124.

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Koop, S., Martin, G., Yu, D., & Suthons, E. Comparison of two reinforcement strategies in vocational-skill training of mentally retarded persons. American Journal of Mental Deficiency, 1980, 34(6), 616-626.

Four experiments conducted to compare minimal social reinforcement to social and edible reinforcement during training of lower functioning retarded clients in assembly tasks of varying complexity.

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<u>Journal of Mental Deficiency</u>, 1982, <u>86</u>(6), 650-653.

Empirical analysis of the supported work model for training mentally retarded persons for competitive employment to identify predictors

of placement. Employing the theory of work adjustment perspective, study indicates predictors are work behavior and job skills, ability to meet job requirements, and employment reinforcements.

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Report on two studies designed to assess specific interpersonal situations and behaviors interfering with the adjustment of mentally retarded persons to vocational settings. First study identifies and evaluates lists of problematic situations and behaviors provided by prevocational teachers, school personnel, and sheltered workshop supervisors. Second study measured problem behavior ratings obtained from residential supervisors and prevocational teachers of 40 mentally retarded individuals before and after placement in a sheltered workshop setting. Includes discussion of future directions in interpersonal-vocational skill research and training.

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Results support hypothesis that employment discrimination against retarded people exists. Article emphasizes need for increased community education.

Linari, R. F. Locus of control, anxiety and work task performance of EMR adolescents. <u>Career Education Quarterly</u>, 1977, 2(1), 26-33.

Study to determine individual and interaction effects of locus of control and anxiety on work task performance of educable mentally retarded youth.

Lynch, K.P., & Gerber, P. J. A survey of community sheltered facilities: Implications for mandated school programs. Education and Training of the Mentally Retarded, 1980, 15(4), 264-269.

Survey of sheltered workshop admission barriers, client and disability variables, program content, and cooperation levels between schools and agencies in a midwestern state.



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American Journal of Mental Deficiency, 1979, 83(5), 432-438.

Study of significance of maladaptive language behavior, considered an aspect of social adjustment, as a threat to otherwise acceptable employment status of mentally retarded workers. Twenty-seven vocational teachers who rated 196 retarded workers indicated irritating verbal manners were more likely to result in job termination than poor communication skills.

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Study comparing adjustment of EMR graduates of special schools who participated in two different work programs: direct placement in work, and work-study program. Work-study program graduates were considered significantly more stable, satisfied, and adjusted than work program graduates, although the variety of their professional opportunities was limited.

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Review of training five severely mentally retarded workers in the relationship between work and piece rate using visual feedback and ratio scheduling of pay.

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Investigation of a multicomponent strategy for helping staff supervise lower functioning retarded clients on contract tasks in an institution-based sheltered workshop.

McCarron, L., Kern, W., & Wolf, C. S. Use of leisure time activities . for work adjustment training. Mental Retardation, 1979, 17(3), 159-160.

Investigation of a garden program at Katherine Hamilton Mental Health Center in Terre Haute, Indiana to demonstrate effectiveness of particular methods of training leisure time activities.

McCarthy, W. Exploration of skills associated with successful functioning of retarded individuals in a sheltered workshop. Education and Training of the Mentally Retarded, 1976, 11(1), 23-31.

Exploration of relationship between routine standardized testing and rated workshop performance of forty-eight 20 to 21-year-old trainable mentally retarded persons. Results consistent with previous correlational studies in that perceptual motor skills were found to be significantly related to sheltered workshop employability.

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Examination of six sheltered workshop settings for mentally disabled adults. Observations indicate turnover, termination, productivity, and hours worked operate as a function of demographic data, workshop settings, and sociability of climatele.

Menchetti, B. M., Rusch, F. R., & Lamson, D. S. Social validation of behavioral training techniques: Assessing the normalizing qualities of competitive employment training procedures. <u>Journal of the Association for the Severely Handicapped</u>, 1981, <u>6(2)</u>, 6-16.

Data from a validation survey distributed to college and university food service employees in nine states. One of the results indicates that employers differentially accepted use of some training procedures based on worker description. Discusses all results and examines implications for service delivery.



Mithaug, D. E. Case studies in the management of inappropriate behaviors during prevocational training. AAESPH Review, 1978, 3, 132-144.

To demonstrate different management strategies, four case studies are presenting each highlighting illustrations of decreasing or eliminating undesirable client behavior in a prevocational training program. Focus is on simultaneous pursuit of skill instruction and behavior management.

Mithaug, D. E., & Hagmeier, L. D. The development of procedures to assess prevocational competencies of severely handicapped young adults. AAESPH Review, 1978, 3, 94-115.

Presents assessment data from 56 workshops, activity centers and developmental centers in five northwestern states. Data analyses yielded a prevocational assessment instrument (PAI).

Mithaug, D. E., & Hanawalt, D. A. Employing negative reinforcement to establish and transfer control of a severely retarded child and aggressive ninteen year old girl. AAESPH Review, 1977, 2, 37-49.

Presents an example of the application of negative reinforcement to increase on-task behavior. Addresses the ethical considerations of aversive stimulation and includes references.

Mithaug, D. E., & Hanawalt, D. A. The validation of procedures to assess prevocational task preferences in retarded adults. <u>Journal</u> of Applied Behavior Analysis, 1978, <u>11(1)</u>, 153-162.

Describes a nonverbal method to assess prevocational task preferences of severely retarded young adults to allow voluntary participation in institutional vocational rehabilitation training programs. Choices of moderately preferred tasks decreased, as expected, when paired with preferred tasks and increased when paired with least preferred tasks.

Mithaug, D. E., & Mar, D. K. The relation between choosing and working prevocational tasks in two severely retarded young adults. <u>Journal of Applied Behavior Analysis</u>, 1980, 13(1), 177-182.

Study of the relationship between prevocational preference and the work following the client's selection. Two severely retarded adults demonstrated that work following object choices reinforced or punished subsequent selections.

Mithaug, D. E., Mar, D., Stewart, J., & McCalmon, D. Assessing prevocational competencies of profoundly, severely, and moderately retarded persons. <u>Journal of the Association for the Severely Handicapped</u>, 1980, 5, 270-284.

Describes the use of an assessment instrument derived from survey data on job entry requirements assessing the prevocational competencies of moderately, severely and profoundly retarded persons. Findings indicate much training will be useful to prepare severely disabled persons for sheltered workshop employment.

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Study of 27 mentally retarded adults living in a halfway house. Results indicate personality factors conscientiousness, assertiveness, self-sufficiency, imaginativeness) and attitudinal variables (cooperativeness, punctuality, timely work completion, attendance, work quality) have major effect on job success of retarded persons independent of specific job skills.

Muth, J. W., & Singell, L. D. Costs and ben'efits of training educable students: The Kansas work-study project reconsidered. Exceptional Children, 19750, 41(5), 334-335.

Suggests projects whose major goal is employability or earning potential of educable mentally retarded students should consider economic costs and benefits. Describes an approach useful in making such economic evaluation.

O'Brien, P. J., & Schiller, W. J. Evaluation of a transitional training program for mentally retarded, multiply handicapped high school students. Rehabilitation Literature, 19790, 40(8), 232-235.

Comparative study of 18 mentally retarded, multiply handicapped high school students in a work-study program, and 12 students in a traditional academic program.

O'Neill, C. T., & Bellamy, G. T. Evaluation of a procedure for teaching saw chain assembly to a severely retarded woman. Mental Retardation, 1978, 16(1), 37-41.

Evaluation of teaching procedures used to teach a 30-year-old

severely retarded woman to assemble the cutting portion of chain saw blades. Approach included differential reinforcement, modeling, and physical priming.

Parham, J. D. Rehabilitation counselor functions and perception of training needs in working with mentally retarded persons. Rehabilitation Counseling Buile in, 1979©, 23(2), 120-125.

Analysis of data from 162 southwestern state agency counselors on their perception of functions and training needs in work with mentally retarded clients. Although counselors considered themselves well-trained for general job functions, they perceived a need for more training to work with mentally retarded persons.

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Comparison of analyses on counselor functions from five state rehabilitation agencies serving a percentage of mentally retarded clients, with a study done nearly ten years ago. Results indicafte counselors spend about the same amount of time performing similar functions regardless of the percentage of mentally retarded persons.

Parrish, L. H. Entry level competencies for handicapped students in vocational agriculture. <u>Career Development for Exceptional Individuals</u>, 1979, 2(2), 97-104.

Learning disabled, emotionally disturbed, mildly retarded, and orthopedically impaired students were analyzed using the Delphi Technique to identify competencies needed to enter a vocational agricultural course. Findings include basic reading and mathematics skills appeared, more important than specific agricultural skills.

Patton, P. L., & Clemmer, S. A successful rehabilitation strategy for the developmentally disabled. <u>Vocational Evaluation and Work Adjustment Bulletin</u>, 1979, 12(4), 7-13.

Comprehensive service provision model demonstrating viable techniques for offering quality rehabilitation services to developmentally disabled people.

Persinger, B. D. Clinical use of the Quick Test with sheltered workshop clients. Perceptual and Motor Skills, 1979, 49(2), 565-566.



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Porter, M. E. Effect of vocational instruction on academic achievement. Exceptional Children, 19800, 463(6), 463-464.

Investigates efficacy of functionally designed vocational courses which focus on job-related skills, concepts, and tasks for mildly mentally disabled students at junior high levels. Discussion of results addresses broader issues in career and special education.

Presnall, D. M. The relationship of manual dexterity and skill acquisition factors to workshop productivity. Education and Training of the Mentally Retarded, 1979, 14(1), 11-17.

Study of 32 moderately and severely retarded adults in a vocational evaluation and training program to measure predictive value of four manual dexterity tests in relation to shop productivity. Results support usefulness of common dexterity measures and task analytic worksamples as methods to predict accuracy and develop individual training strategies.

Principato, F. R. Effect of goal setting with feedback on productivity in a sheltered workshop. Education and Training of the Mentally Retarded, 1983, 18(2), 141-144.

Examination of effects of goal setting and knowledge of results on mentally retarded adults in a sheltered workshop. Results support hypothesis that these elements significantly increase productivity over baseline levels.

Quinones, W. A. A test battery for assessing the vocational competency of moderately mentally retarded persons. Mental Retardation, 1978, 16(6), 412-415.

Study of sixty-one 16 to 41-year-old subjects was designed to develop tests for predicting vocational competency of moderately retarded individuals in a sheltered workshop program.

Ramsey, B., & Fifield, M. Using career exploration work simulation units with the mentally retarded—A pilot study. <u>Journal for Special Educators</u>, 1980, 16(3), 286-297.

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Evaluation of six work simulation units developed for exploration by normal elementary and high school stude applicability in determining vocational potential of metarded individuals. Results suggest simulation unit effective with minimal reprogramming.

Redding, S. F. Life adjustment patterns of retarded and functioning students. Exceptional Children, 19790, 45

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Comparative study of life adjustment among two groups graduates: 20 educable mentally disabled students and cooperative work training program students.

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Survey comparing current information on institutional training programs with results of a 1957 survey in whi state-supported institutions for the mentally retarded Findings include decreased number of residents trained institutional work areas and increased number of worker payment.

Richardson, S. A. Careers of mentally retarded young personal relations. American Mental Deficiency, 1978, 82(4), 349-358.

Job placement at school graduation and major occupation are reported for an index population of children classiful mentally retarded. Matched comparisons were made with never classified as retarded. Index cases not receiving retardation services were compared with matching cases objective and subjective measures of jobs held and interpretationships.

Richman, J. S. Background music for repetitive task perfor severely retarded individuals. <u>American Journal of Marian Deficiency</u>, 1976, 81(3), 251-255.

Study indicating regular tempo of background music facilimprovement in habilitation performance of severely repersons.



Rosenberg, H. Job satisfaction and social interactions of mildly retarded males in uni- and multi-disability workshops. <u>Journal of Applied Rehabilitation Counseling</u>, 1979, 10(4), 204-207.

Survey of two 30-member groups of mildly retarded males in uni- and multidisability workshops as to job satisfaction and social interaction. Results revealed a more "normalizing" effect in multidisability workshops where physically disabled trainees and staff serve as models for work values and behaviors.

Rusch, F. R. Toward the validation of social/vocational survival skills. Mental Retardation, 1979, 17(3), 143-145.

Discussion of social/vocational behaviors that may contribute to long-term employment of mentally retarded persons. Suggestions for research efforts included.

Rusch, F. R., Connis, R. T., & Sowers, J. The modification and maintenance of time spent attending to task using social reinforcement, token reinforcement and response cost in an applied restaurant setting. Journal of Special Education Technology, 1978, 2, 18-26.

Study to evaluate a series of program variables used to modify the time spent by a subject attending an experimental restaurant. Selective behaviors evaluated based on a combination of treatment variables. Limits of research and future areas to investigate are presented.

Rusch, F. R., & Menchetti, B. M. Increasing compliant work behaviors in a non-sheltered work setting. Mental Retardation, 1981, 19(3), 107-111.

Results of training a 26-year-old moderately mentally retarded male to cooperate with co-workers in nonsheltered work setting indicate practice and warnings may dramatically increase positive compliant response.

Rusch, F. R., Schutz, R. P., & Agran, M. Validating entry-level survival skills for service occupations: Implications for curriculum development. <u>Journal of the Association for the Severely Handicapped</u>, 1982, 7(3), 32-41.

Study to determine expectations of potential employers of severely handicapped individuals entering competitive employment. Using

social validation methodology, researchers identified skills for inclusion in a prevocational curriculum.

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Study in a large midwestern university dining hall of topic repetition of a mentally retarded worker and the use of co-worker feedback to reduce repetition.

Schalock, R. L., & Harper, R. S. Placement from community-based mental retardation programs: How well do clients do. American Journal of Mental Deficiency, 1978, 83(3), 240-247.

Evaluation of placement success of mentally retarded clients placed during a two-year period from independent living or competitive training programs.

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vocational words for mentally retarded students. Education and
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Evaluation of training secondary educable mentally retarded students to be joit-squeeze operators in a foundry.

Schreiner, J. Prediction of retarded adults' work performance through components of general ability. American Journal of Mental Deficiency, 1978, 83(1), 77-79.

Factor analysis of variables used to predict work performance or industrial rate for 127 mentally retarded adults. Variables included subject characteristics, standardized tests, ratings, and work samples.



Schroeder, S. R., & Barrera, F. J. Effects of price manipulations on consumer behavior in a sheltered workshop token economy. American Journal of Mental Deficiency, 1976, 81(2), 172-180.

Evaluation of consumer behavior of institutionalized retarded clients in a sheltered workshop token economy.

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Sigelman, C. K., & Davis, P. J. Making good impressions in job interviews: Verbal and nonverbal predictors. Education and Training of the Mentally Retarded, 1978, 13(1), 71-77.

Study to identify verbal and nonverbal behaviors influencing employer perception and evaluation of mentally retarded job applicants.

Sigelman, C. K., Flexer, R. W., Spanhel, C. L., & DeSanctis, M. Rehabilitation's partnership with the schools in vocational programming of handicapped youth: A survey. <u>Journal of Applied Rehabilitation Counseling</u>, 1979, 10, 208-213. (NARIC Call No. 03914)

Investigates school-rehabilitation partnerships in vocational programming for handicapped youth in Texas, analyzing quastionnaires completed by four key staff members in 69 work-study programs. Implications for rehabilitation agencies and for future cooperation are discussed.

Sigelman, C. K., Morris, B. S., & Danley, W. E. An evaluation of vocationally-related performance among low IQ clients. Vocational Evaluation and Work Adjustment Bulletin, 1979, 12(1), 22-26.

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Vocational evaluation study of 43 low IQ rehabilitation clients comparing performances of males and females and among three IQ groupings. Evaluation battery included measures of sensory and motor abilities relevant to job performance and of personal social

knowledge and adjustment. Discusses implications for rehabilitation policy.

Smith, T. E. C. Employer concerns in hiring mentally retarded persons.

Rehabilitation Counseling Bulletin, 19819, 24(4), 316-318. (NARIC Call No. J1032)

Survey of employers to identify their concerns about hiring mentally retarded persons.

Snart, F., & Swann, V. Assessment of intellectually handicapped adults: A cognitive processing model. <u>Applied Research in Mental Retardation</u>, 1982, 3(2), 201-212.

Examination of the relationship of cognitive processing ability (as defined by an information-integration model) and success with a set of work samples. Results of assessment are discussed in relation to program planning and vocational training.

Solberg, A., & Raschmann, J. K. The effects of vocational services provided to the mentally disabled. Community Mental Health Journal, 1980, 16(2), 112-120.

Evaluation of effects of vocational services provided to mentally disabled clients of the Fresno County Health Department of the California State Department of Vocational Rehabilitation. Costbenefit analysis included.

Sowers, J., Rusch, F. R., Connis, R. T., & Cummings, L. E. Teaching mentally retarded adults to time-manage in a vocational setting.

Journal of Applied Behavior Analysis, 1980, 13(1), 119-128.

Training of three mentally retarded adults, who had minimal ability to tell time, to "time-manage."

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Review of several studies on selection or occupational interests for mentally retarded adolescents. Voices concerns about occupational, sexual, racial, and regional biases in current evaluation practices. Suggests a client-centered developmental model part of career/vocational development process.

Stodden, R. A., & Lazar, A. L. The effects of treatment upon the relationship between vocational interest and vocational ability of the educable mentally retarded adolescent. Education and Training of the Mentally Retarded, 1979, 14(4), 251-256.

Study of effects of prevocational guidance on 98 educable mentally retarded adolescents. Findings indicate prevocational exploration is a positive influence on the relationship between students' vocational interests and abilities.

Talkington, L. W., & Overbeck, D. B. Job satisfaction and performance with retarded females. Mental Retardation, 1975, 13(3), 18+19.

Study exploring relationship between expressed satisfaction or dissatisfaction in work assignments and associated performance. Compares satisfied and dissatisfied groups of retarded female workers on ten job performance attributes.

Walls, R. T., Ellis, W. D., Zane, T., & Vanderpoel, S. J. Tactile, auditory, and visual prompting in teaching complex assembly tasks. Education and Training of the Mentally Retarded, 1979, 14(2), 120-130.

Comparison of effects of teaching four assembly tasks to 32 mildly to severely retarded vocational rehabilitation clients by means of physical guidance, modeling, verbal instructions, and a combination of all methods.

Walls, R. T., Haught, P., & Crist, K. Products, service contracts, operations, and tools in sheltered workshops. Education and Training of the Mentally Retarded, 1982, 17(3), 209-213.

Survey of 3,000 sheltered workshops to identify specific products, service contracts; hand operations, hand tools, and power tools used. Eighty-six different hand tools and 130 power tools are

listed among 449 products and contracts submitted by 737 responding workshops.

Walls, R. T., Haught, P., & Dowler, D. L. Moments of transfer of stimulus control in practical assembly tasks by mentally retarded adults. American Journal of Mental Deficiency, 1982, 87(3), 309-315.

Study of 20 vocational rehabilitation clients divided into high— and low-aptitude groups and trained to assemble three different 10-part apparatuses using three progressive prompt delay intervals. Both groups demonstrated similar patterns in shifting from prompt dependent to independent response.

Walls, R. T., Sienicki, D. A., & Crist, K. Operations training in vocational skills. American Journal of Mental Deficiency, 1981, 85(4), 357-367.

Investigation of whether operations training reduces time and errors in developing specific vocational skills. Results suggest component operations should be taught in vocational training programs.

Walls, R. T., Tseng, M. S., & Zarin, H. N. Time and money for vocational rehabilitation of clients with mild, moderate, and severe mental retardation. American Journal of Mental Deficiency, 1976, 80(6), 595-601.

Study of mildly, moderately, and severely mentally retarded vocational rehabilitation clients in random national sample. Analysis of time in referral, training, and rehabilitation process and of dollars in evaluation, facilities, all services, and earnings indicated the most time and money were on nonrehabilitated severely retarded individuals.

Walls, R. T., Zane, T., & Thvedt, J. E. Trainers' personal methods compared to two structured training strategies. American Journal of Mental Deficiency, 1980, 84(5), 495-507.

Analysis and comparison of training methods naturally employed by trainers to systematic structured training procedures.

Warner, D. A., & Mills, W. D. The effects of goal setting on the manual performance rates of moderately retarded adolescents. Education and

Training of the Mentally Retarded, 1980, 15(2), 143-147.

Study to determine effects of goal setting on performance of five moderately retarded adolescents performing relatively complex assembly tasks.

Webster, P. Sr Occupational role development in the young adult with mild mental retardation (evaluation tools, program implications).

American Journal of Occupational Therapy, 1980€, 34(1), 13-18.

Review of literature on occupational selection process of young adults with mild mental retardation. Author constructs a model demonstrating relationships among components of the selection process and factors affecting occupational role development. Includes a case study applying theory to practical situation.

Wehman, P., Hill, M., Goodall, P., Cleveland, P., Brooke, V., & Pentecost, J. H., Jr. Job placement and follow-up of moderately and severely handicapped individuals after three years. <u>Journal of the Association for the Severely Handicapped</u>, 1982, 7(2), 5-16.

Highlights, characteristics, and conclusions of a three-year job placement project for moderately and severely handicapped individuals previously categorized "realistically unemployable."

Wehman, P., Hill, J. W., Koehler, F. Helping severely handicapped persons enter competitive employment. <u>AAESPH Review</u>, 1979, <u>4</u>, 274-290.

Based on placement experiences of Project Employability, this paper discusses issues involved in helping severely developmentally disabled individuals achieve competitive employment. Results can aid in job placement for those severely disabled clients with limited work histories.

Wehman, P., Hill, J. W., & Koehler, F. Placement of developmentally disabled individuals into competitive employment: Three case studies. Education and Training of the Mentally Retarded, 1979, 14(14), 269-276.

"Project Employability" service model and three case studies illustrating job placement process for developmentally disabled individuals are described. Funded by Virginia Department of Rehabilitative Services.

Wehman, P., Schutz, R., Renzagila, A., & Karan, O. C. The use of positive practice training in work adjustment with two profoundly retarded adolescents. Vocational Evaluation and Work Adjustment, 1977, 14(3), 14-22.

Two case studies applying positive practice training with profoundly retarded adolescents participating in an institution-based workshop program. Results demonstrate utility of positive practice in vocational training and work adjustment.

Westling, D. L., Schwartz, S. E., & Elliot, F. Work-study coordinators' opinions of factors contributing to successful on-the-job training.

<u>Career Development for Exceptional Individuals</u>, 1979, 2(1), 48-54.

Study of special education directors to ascertain characteristics and abilities considered important for on-the-job training of mildly retarded individuals. Explores value of a variety of strategies suggested in vocational placement literature.

Wimmer, D. An investigation of the cognitive content of career education for the mildly mentally retarded. Education and Training of the Mentally Retarded, 1979, 14(1), 42-49.

Examination of five career education curricula for mildly retarded students to determine cognitive content and to identify achievement levels measured in performance of 295 retarded students.

Zane, T., Walls, R. T., & Thvedt, J. E. Prompting and fading guidance procedures: Their effect on chaining and whole task teaching strategies. Education and Training of the Mentally Retarded, 1981, 16(2), 125-135.

Study comparing efficiency of two pairs of training methods: backward chaining preguidance versus backward chaining postguidance; and whole-preguidance versus whole postguidance. Preguidance procedures proved superior to postguidance in training time and total errors.

Zohn, C. J., & Bornstein, P. H. Self-monitoring of work performance with mentally retarded adults: Effects upon work productivity, work quality, and on-task behavior. Mental Retardation, 1980, 18(1), 19-25.



Assessment of effectiveness of a self-monitoring treatment package aimed at increasing productivity of four moderately retarded sheltered workshop employees.





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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.



REHABILITATION RESEARCH REVIEW Topics in the Series

The Role of the Family in Rehabilitation

Private Sector: Role of Rehabilitation Professionals

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Performance Appraisal of Rehabilitation Professionals

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Principles and Practices of Vocational Rehabilitation with Persons with Hidden Disabilities

Low Cost Technology and its Application to U.S. Rehabilitation Practices

Rehabilitation Education and Training

Client Vocational Assessment

NOTE: Future Role of Rehabilitation Workshops (Annotated Reference List)

