ABSTRACT

Presented is an annotated bibliography of 47 documents relating to prevocational training of deaf-blind children. Entries include books, journal articles, conference proceedings, and regional center reports and usually provide information on author, title, source, publication date, and a review (including a brief description of the type and content of the material and a review statement suggesting the relevance and value of the material in regard to deaf-blind prevocational training). A special section lists 12 writings of M. Gold on the major instructional approach taken in the model Deaf-Blind Prevocational Program developed at the National Children's Center. (SB)
SELECTED ANNOTATED BIBLIOGRAPHY
OF DEAF-BLIND PREVOCATIONAL TRAINING LITERATURE

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Overview

In approaching the review of the literature directly relevant to deaf-blind prevocational training, it was realized at the outset and noted in the initial grant proposal that an extensive effort would be required to come up with even modest results.

For this reason, the review was carried out on a two-fold basis through library research as well as through correspondence with various agencies, schools, and institutions. The extensive library research was conducted at two local universities (American University and Catholic University) and the National Institute of Health. All abstracts reporting work having to do with the prevocational and vocational training of handicapped children were thoroughly scrutinized. This process led to such periodicals as American Vocational Journal, Education of the Visually Handicapped, The Volta Review, Vocational Guide Quarterly, The Exceptional Child, and Manpower. By further review, however, it was determined that very few of the articles contained in these periodicals had any relevance to deaf-blind prevocational training.

All regional coordinators serving deaf-blind individuals were contacted and asked to recommend any articles, reports, etc., that they had knowledge of. Departments of Education in various states along with a number of schools and agencies serving multihandicapped children, recommended by the American Foundation for the Blind and others, were requested by letter to assist in our review efforts. Colleges and universities, known for their course offerings in deaf-blind education, were also contacted and requested to send class outlines for any courses offered specifically relevant to deaf-blind prevocational training.

There were a favorable number of responses from those contacted, but the majority contained an apology for having no information to offer, and
a request that we notify them of any information of relevance that we might uncover in our research. A final complicating factor which greatly affected the timely completion of the review process was the arrival of the majority of the relevant reports and documents after the completion of the project.

To all those individuals and agencies who were able to respond with information and review suggestions however, regardless of the timing, we are especially grateful. Their contributions were invaluable to the completion of the review.

As will be noted, the write up on each document included in the review generally includes a brief description of the type and content of the material and, when not self evident, a review statement suggesting the relevance and value of the material in regard to deaf-blind prevocational training.
The authors cover in depth the effects of deafness on education, occupation and income, job stability, and preference for co-workers in a selected deaf population. Early childhood education is stressed; those beginning their education before the age of four have 16.7 percent more individuals achieving college level than those beginning later in life. Occupations range from clerical work to manual labor and wages range from over $100 a week (77.9 percent of the females and 16.9 percent of the males). Deaf workers make excellent employee risks with 93.2 percent of the men and 69.6 percent of the women holding the same job for more than three years. Almost a quarter of the group stated no preference as to co-workers. They regarded hearing persons as generally lacking in understanding, rather than simply liking or disliking the deaf.

The population studied differs from the deaf-blind population in question not only because of the added handicapping condition of sight loss for deaf-blind individuals but also the level of functioning of the deaf-blind population is significantly lower. Be that as it may, the authors present a thorough overview of the occupational and financial situation facing deaf individuals. The lack of such research with multiply handicapped deaf-blind individuals makes this study significant in that with the added handicaps of blindness and mental retardation it is reasonable to assume that early education and training will be even more critical.


The purpose of the curriculum is to provide a pre-career guide for professionals and a reference source for teachers of the deaf-blind. The main objective is to aid deaf-blind multihandicapped students reach their full potentials, and to prepare them for varying degrees of independence. The curriculum attempts to solve problems that rubella children will face as they approach teenhood. A definition of terms, checklists for established functional levels, programs for personal hygiene, and communication and social skills, etc., are all included. Part III deals with programs designed to prepare the children for employment. Guidelines, such as the safety of the activity, capabilities of the child to accomplish the task, and availability of materials, are all covered.

English, Patricia. Prevocational Services for Deaf-Blind Children and Youth, North Central State Department of Public Instruction, Wrightsville Beach, North Carolina, 1974.

The paper presented by English is primarily open-ended and thought-provoking. Emphasis is placed on generalized statements of prevocational training and its problems and possible solutions, and provides some suggestions as to the services necessary for successful prevocational training with the deaf-blind population.

In order to understand the basic meaning of prevocational training and some of the difficulties that arise when attempting to serve deaf-blind children, the article by English is beneficial. However, while there are positive aspects to the paper, it should be noted that it is lacking in documentation of the views presented.
Franklin, Barbara. Communication Handicapped Deaf/Blind Program, San Francisco State University, San Francisco, California, undated.

The Communication Handicapped Deaf/Blind Program is a competency-based deaf-blind teacher training program offered at San Francisco State University. The program offers a teaching credential in deaf-blind education and meets minimum certification requirements for teachers of the hearing impaired. Although the program outline does not provide a model for prevocational services, among the competencies set as goals for students of the program is a specific objective: the student will "demonstrate knowledge of categories of children to be served in a prevocational program." Indicators of this competency include describing self-sufficiency, sheltered workshop candidacy, total dependency, living skills, low-grade service skills, sheltered workshop skills, and a description of work outside protective institutions. Teaching/learning experiences are required in order to meet all of the teaching competencies. In general, the program would seem to provide a sound and appropriate preparation for persons deserving to meet the prevocational as well as other needs of the deaf-blind population based on existing services in the community. Apparently prepared in 1974.

Franklin, Barbara. Final Report: Deaf-Blind Prevocational Course, South Central Regional Center for Services to Deaf-Blind Children, through the Callier Center for Communication Disorders and San Francisco State University, June, 1974.

The course is offered to graduate students in the deaf-blind training program at San Francisco State University and coordinated with the development of the prevocational training program proposed by the deaf-blind department at the California School for the Blind. In her written report, Ms. Franklin explains the concept of "vocational" as being "whatever you're going to be doing for the rest of your life--this is not necessarily job oriented." Under their philosophy of prevocational training, freedom of choice, self-respect (through exposure), are the main objectives. Evaluation and crediting are based on observation and participation in classrooms, shops, and selected field locations.

From the course outline and from comments from students evaluating the course, it is obvious that classes of this type will benefit all involved in deaf-blind prevocational training. As more and more emphasis and attention is directed towards specific training for working with multihandicapped children, academic training for teachers becomes a high priority. It would seem important that other colleges and universities become aware of this need and develop similar classes of prevocational training stressing experience in the field.

Haymeier, Lee. Status Reporting a Development Program to provide Prevocational and Vocational Services for Youth and Adults with both Vision and Hearing Impairments, Northwest Regional Center for Deaf/Blind Children, undated.

The status report in the main is a summarization of existing conditions in the Northwest Region related to providing a comprehensive network of services to the VHI (visually and hearing impaired). Impressions are that few generalizations can be made about the VHI population because of the heterogeneity of their characteristics. The existing philosophy of the
investigators, however, is that all VHI persons should be trained in activities of personal and social value maximizing their potential for personal fulfillment and that these abilities should be related to independent living and the world of work (careers). The investigators also believe strongly that career expectations and opportunities must exist for the VHI person and that these individuals, when capable, should be advocates for their rights to these careers, education, and habilitation programs. The state of current conditions in relation to this philosophy, however, is that few of these services and opportunities exist. What more typically exists now are programs providing training in more basic prerequisites such as feeding, dressing, toileting, basic academics, and mobility rather than the sophisticated living skills, and prevocational or vocational skills. Areas such as developing work habits and attitudes are usually not found among program goals. Report was apparently prepared in 1974.

The investigators' recommendation or "next step" is described as a regionally coordinated "Activity Model or a program of services for the VHI-MHP (multiply-handicapped)." As the title somewhat infers, the model proposed is a general one covering all services to be provided for or on behalf of each deaf-blind individual within the Northwest region. The major activity or functional areas described are program planning, client identification, information facilitation, legislation, resource identification, development and implementation, and placement.

Under the resource identification, development and implementation activity, the following programming areas are identified and perceived as essential in working with VHI-MHP: self-management skills program, an educational program, and a general vocational program. The training areas noted under each program are to be included in an individual's program depending on his functional level; however, no developmental sequencing or specific identification of those areas especially relevant for the low functioning VHI is attempted. The suggestion given is to implement a development program that is constantly undergoing modifications based on feedback to best meet the needs of the VHI population they serve.

The activity model illustrates vital areas to include in a service program, from family liaison to legislation and research with many more areas described, all operating through a coordination component. Future efforts will include curriculum development, a critically important aspect of establishing a replicable prevocational training model.


In the early nineteen seventies, Jones visited twelve programs for visually handicapped children with additional disabilities, and published his findings. Most programs for the blind with additional handicaps are located in residential centers and educational/training programs centers, on independence. Instruction in all areas (mobility, speech, reading, vocation) is the responsibility of the entire staff, which consists mainly of para-professionals. All children are admitted conditionally for the first year and re-assessed continuously. Results of formalized tests are utilized more as a diagnostic tool to devise a program rather than a decision criteria for admittance. Observation techniques are heavily used and data is recorded on standardized
The paper is composed of detailed accounts of using behavior modification techniques with visually handicapped children. A six-year-old child with extreme tunnel vision and a Slosson IQ of 90 learned tactile skills to distinguish different objects and to develop a competence with Braille. Another child, an eight-year-old girl diagnosed as educable visually handicapped, was taught on-task behavior. Each case contains the initial baseline and reinforcement data. A second baseline is then used to determine whether contingent reinforcement was the causal factor in the improvement. Finally, reinforcement is reinstated and gradually reduced as the child reaches criteria.

Behavior modification techniques have, for some time, proven to be beneficial when working with mentally retarded or emotionally disturbed children, and are gradually making their way into the area of deaf-blind, prevocational training. The article by Roàdes, Pisch, and Axelrod is especially relevant, due to the concise detailing of work with visually handicapped children. Studies indicate that behavior modification procedures can be used to further the tactile and motor development of visually handicapped children with additional disabilities.


For the successful planning of long-term goals and specific behavioral objectives, knowledge of current behaviors and capabilities is needed. Dr. Stillman's paper states that assessment is usually carried out by using one of two scales. The first is the performance scale which requests a child to carry out a given task. The second is a technique which relies primarily on observation of spontaneous behavior in structured and unstructured settings. The Azusa scale is composed of five subscales, each made up of four performance objectives. In each performance objective there are seven steps describing behaviors observed among both normal and multihandicapped children. After two years of field testing, results from over seventy teachers using the scale indicate it to be most effective when used to assess the developmental level and measure progress in functioning deaf-blind multihandicapped children. The scale is not recommended for use as a program planning guide but is better as an assessment tool for determining the general growth and development of a child. There are, however, scale and subscale areas that could be especially helpful in assessing growth in prevocational skill areas (e.g., fine-motor and visual-motor development, daily living skills, and receptive and expressive language development).

As the title indicates, this final report describes a regional planning process rather than an ongoing model program. The report does, however, focus on the notion of child-by-child plans which lend themselves both to shifting goals as the child becomes an adult as well as an ongoing program evaluation mechanism that will encourage the development of effective instructional approaches in either an academic or prevocational setting.

An additional point of relevance for deaf-blind prevocational programming found in the report is a final note stating that a paper titled "Model Prevocational Program for Deaf-Blind Youth" by Mike Nelopovich is to become available for use as a program guide at least for teachers within the Mountain Plains region.


The paper is an organized account of behavioral change in a deaf-blind child. Videotapes of twenty deaf-blind multihandicapped children in four situations over a period of four years are used to demonstrate the success or failure of training procedures with such a population. Videotapes of the child, felt by the researchers to have made the least progress, were presented to the observers who, in turn, submitted a completed scale rating the differences in the child's behavior over the time period.

The results of the observation and analyses show the child's behavior as being more of an asset in 1973 than in 1969 in an unstructured situation, a stimulus oriented environment, and a task oriented situation.

Although the article does not directly pertain to deaf-blind prevocational training, it does demonstrate the possible advantages of using videotape as a reliable means of recording behavioral changes in deaf-blind children. It also, indirectly, stressed the importance of visual documentation along with written documentation via data collecting forms and/or behavioral rating scales.


Results of a three-day conference are reported wherein individuals in the field of deaf-blind education attempt to develop necessary criteria for the design and evaluation of prevocational training projects. Three main categories of factors are enumerated by the conference participants which they suggest will or should have a major impact on the designing of deaf-blind prevocational training projects.

The first are characteristics of the deaf-blind individuals that they judge to be important in determining who will derive the greatest benefit from prevocational training. The second are the skills which the individuals should acquire as a result of the program. The third are the types of major components (curriculum, staff, and methodology) that are desirable in a good treatment program.

An important underlying assumption of the conference appears to be that the world of vocational opportunities for deaf-blind individuals is essentially a given entity rather than one to be developed. The results thep
would be most helpful in instances where the objective of a prevocational program is to take advantage of existing placement opportunities and resources.

Final Report, Regional Planning Program for Prevocational Services to Deaf-Blind Children, published by South Central Regional Center for Services to Deaf-Blind Children through Callier Center for Communicative Disorders, undated.

This final report is the result of a series of conferences and a number of survey questionnaires designed to produce relevant planning information in response to four specified objectives related to deaf-blind programming. The first of the objectives is to determine personal and developmental needs of deaf-blind children. The second objective is to identify current and potential service agencies and vocational opportunities in the South Central Region of the United States. The third objective is to identify the skills and knowledge necessary for deaf-blind individuals to be successful in existing vocational environments and, lastly, to identify those characteristics of jobs and employment settings which are judged to be important for deaf-blind workers.

A model prevocational program is not proposed in the report. Included, however, are suggested prerequisite skill levels identified for work activity centers, sheltered workshops, and competitive employment. These are informative especially if placement in existing rather than the creation of new vocational opportunities is the goal of educational and training agencies now serving the deaf-blind population.
The following are selected reviews of books, articles, proceedings of conferences etc., deemed relevant to Deaf-Blind Prevocational Training, as reported in Bléa, William S., Literature on the Deaf-Blind - An Annotated Bibliography, Southwestern Region Deaf-Blind Center, Sacramento, California, 1970.

**BOOKS:**


The author briefly defines "deaf-blind" and traces the educational development from work done by Dr. Howe with Laura Bridgman, and by Anne Sullivan Macy with Helen Keller. This work formed the basis for all subsequent policies of educating and employing the deaf-blind. Miss Hayes discusses the financing of this care and training and calls it a civic duty. She describes various jobs possible for the deaf-blind.

**Industrial Home for the Blind, Rehabilitation of Deaf-Blind Persons.** A Joint Project of the Office of Vocational Rehabilitation and the Industrial Home for the Blind, Industrial Home for the Blind, Brooklyn, 1958, 1959. 7V. The results of this two year study are categorized in seven volumes.


V.2. Communication - A Key to Service for Deaf-Blind Men and Women. Explores and discusses general methods of communication.

V.3. Report of Medical Studies on Deaf-Blind Persons. All support services must be more vigorously applied to deaf-blind.

V.4. A Report of Psychological Studies with Deaf-Blind. Psychological tools can be adapted for use with the deaf-blind. The degree of difficulty in rehabilitating the blind or the deaf-blind is the same.

V.5. Studies in the Vocational Adjustment of Deaf-Blind Adults. Biggest problem is industry's reluctance to accept the seriously disabled.

V.6. Recreation Services for Deaf-Blind Persons. Structured recreation is vital for rehabilitation.

V.7. Survey of Selected Characteristics of Deaf-Blind Adults in New York State. Statistics and tables of characteristics are provided.
Most deaf-blind people are afflicted with nervous tension, a deep sense of insecurity, and frustration. Dr. Salmon tells of the efforts of the Industrial Home for the Blind, Brooklyn, to alleviate these and other problems. However, the author calls upon society as a whole to generate humanitarian zeal for the improvement of the deaf-blind patient's overall status, meet the challenge of finding a place for him in society, and be willing to learn to communicate with him.

**ARTICLES:**


Miss Rice feels, while academic subjects may have limited intrinsic value in later life for the deaf-blind, they are the steps toward the goal of student happiness. She strongly urges teachers to build and strengthen ambition in their students and decides the prevalent -- erroneous theory that continual entertainment must be provided...


With suggestions for making the lives of the deaf-blind fuller and more interesting, the writer lists types of work appropriate for them and points out differences in ability among them.

Lowe, P.: "The Teaching of Handicrafts to Deaf-Blind Persons." New Beacon, 1942, 25, pp 173-175. The keynote to success in teaching handicrafts to the deaf-blind is patience. Each one needs individual tuition. The writer gives steps in teaching basket weaving, hand loom weaving, machine knitting. He feels the secret of happiness for these hand-capped people is an occupation.

Lowe, P.: "The Occupation of the Deaf-Blind." New Beacon, 1951, 35, pp 125-127. A report of the activities at Tate House, a home for the deaf-blind conducted by the National Institute for the Blind, in which the writer tells of the training and treatment of new residents. Communication, as well as learning various handicrafts, are emphasized. The writer
feels the secret of happiness for the deaf-blind is an occupation.


This is a detailed description of the training of a young deaf-blind woman in a series of machine operations which she learned quickly and intelligently, passing set standards for quality and quantity, and going on to more complicated machine work.


Deaf-Blind Mr. Sculthorpe not only describes his workroom and its equipment of tools, but also tells you, step by step, how to use them. You should be able to construct a "nice bedside cabinet" after reading this article.


After a discussion of the difficulties of the "home teacher", successfully rehabilitating a handicapped person without outside support, Mr. Smith describes an experience with a man, "Tom". Tom, deaf from birth, had adjusted to this handicap and was supporting himself as a carpenter, when he became blind at the age of 40. By persistence and kindness, Mr. Smith finally taught Tom to read "moon", helped him to regain his confidence. But one man could not completely do the job; worker's help was needed to help socially rehabilitate Tom.


The writer sketches the early life of Ronald Scriven, poet, playwright, journalist. Mr. Scriven became deaf at the age of 8, and increasing loss of sight started when he was 21. As poet and writer of scripts for radio, Mr. Scriven found his place and Mr. Gardner points out that though Scriven is deaf and blind, "...he is also an artist. As an artist he wants an audience, not sympathy."


In spite of her major handicaps, Miss Martin learned to play the piano excellently. Because of her intelligence and determination, she was able to prepare herself to live as a normal young woman.

Hirsch, E.: "Germany's Care for Those Who Cannot Hear or Speak or See." New Outlook for the Blind, 1929, 23, #2, pp 35-36, 41.

The writer describes Oberlin House at Nowawes in Germany. It has, among its many welfare works, a school for the deaf-blind. The general education and training in some type of work for those who are able and employable are gone into, and also the need for more such schools.

The author writes of a competent home teaching service which works with educable, employable deaf-blind persons and prepares them for the next step - vocational rehabilitation. The placement of these doubly handicapped persons is discussed and the various vocations possible for them are listed.


The writer reviews the education of the deaf-blind and brings up the question often asked by the public: What will these people do with education? He points out that today (1952) the deaf-blind are taught to communicate, read, and earn their own livings. He gives the goals and traces the evaluation, education, and training given to the deaf-blind at the Industrial Home for the Blind in Brooklyn, emphasizing methods of communication, incidence of blindness accompanied by auditory deficiency, programs to help these people, and rehabilitation.


This article focuses on the preparation and training of deaf-blind persons for both workshop and industrial situations. Many salient points pertaining to deaf-blind employment are made. Among them, not only proper skill and job mobility training of the client, but complete preparation of the working staff for the arrival of the deaf-blind worker is urged.


The author, coordinator of Speech and Hearing Projects, Industrial Home for the Blind, reported on the special requirements of the hard-of-hearing blind. Particularly, the psychological, social, and vocational needs of these clients were enumerated with specific emphasis centered on auditory rehabilitation as the means of enabling full usage of residual hearing.


The author, employment placement specialist for the Industrial Home for the Blind, detailed the procedure used to successfully integrate two deaf-blind persons into job situations. The key was the continued support of Industrial Home for the Blind personnel after these people were hired, orienting the worker to his new job, giving necessary mobility instructions, going over
The route traveled to work, etc. The deaf-blind employee was not just dumped into the lap of the employer. Rather, a rehabilitation worker remained until the new employee fit smoothly into the total work scene.


The Anne Sullivan Macy Service for Deaf-Blind Persons and the Industrial Home for the Blind, Brooklyn, make the following available for the deaf-blind: Evaluation of condition and health, communication training, rehabilitation and, if possible, vocational placement.


After a struggle to add the deaf-blind to the service program of the Industrial School for the Blind, Brooklyn, a special program was started: Light Buoy, which now successfully employs 21 deaf-blind men. The author discusses other possible places of employment for the deaf-blind and some of the problems involved.


The writer gives general approaches to the testing of a deaf-blind client and certain necessary considerations. The determination of a client's potential for employment of personal resources is a paramount question.


Deaf-Blind persons are capable of earning their own livings. There should be no delay in a person receiving vocational services to enhance his placeability. The writer gives facts about the performance of the deaf-blind, training of varying lengths, the need of industries and businesses to have one person on the staff trained and experienced in services to the deaf-blind.
The following bibliography lists selected writings of Dr. Marc Gold of the University of Illinois. Although these are not what would be termed a part of the Deaf-Blind Prevocational Training Literature, they do represent the major instructional approach taken in the model Deaf-Blind Prevocational Program developed at the National Children's Center and are receiving increased acceptance among professionals in the deaf-blind field. With this in mind it is felt this reference information should prove extremely useful to individuals interested in replicating and expanding upon the model program herein reported.
15.

Selected Bibliography of Publications

By

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Task analysis, or the reduction of a task to its smallest component parts, is demonstrated here through trainable mentally retarded children for success in sheltered workshop activities. The purposes of the analysis are (a) to enable the teacher to teach by suitably small steps, and (b) to aid in locating a specific problem when a child encounters difficulty.


Sixty-four moderately and severely retarded individuals enrolled in four sheltered workshops learned to assemble a 15-piece and a 24-piece bicycle brake. Training procedures utilized information obtained from the basic psychological research on discrimination learning. One-half of the subjects worked with the parts of the training task brake as they came from the factory (Form-only). The others worked with parts that were color-coded (Color-Form). Coding consisted of painting that surface of each part that is facing the subject when it is placed in the proper position for assembly. All groups worked with the parts of the transfer task brake as they came from the factory (Form-only). Half of the subjects learned the tasks to a criterion of six correct out of eight consecutive trials, the other half performed 20 trials beyond criterion on the training task brake (overlearning). The Color-Form Groups learned the training task brake significantly faster than the Form-only Groups. No significant overlearning effect was found.

The importance of teachers obtaining experiences similar to those for which their students are being trained is discussed, both in terms of life experiences and vocational experiences. The importance of instructional technology is also discussed.


This chapter describes concepts from basic research on attention theory and discrimination learning in a manner designed to make the concepts useful to teachers and others working with normal or handicapped children.


Sixty-four moderately and severely retarded individuals enrolled in four sheltered workshops learned to assemble a 15-piece bicycle brake and were then tested for transfer to a 24-piece bicycle brake. Fifty-three of the subjects were retested on both tasks after one year. Training procedures utilized information obtained from the basic psychological research on discrimination learning. One-half of the subjects worked with the parts of the training task brake as they came from the factory (Form-only). The others worked with parts that were color coded (Color-Form). Coding consisted of painting that surface of each part that is facing the subject when it is placed in the proper position for assembly. All groups worked with the parts of the transfer task brake as they came from the factory (Form-only). Half of the subjects learned the tasks to a criterion of six correct out of eight consecutive trials, the other half performed 20 trials beyond criterion on the training task brake (overlearning). The Color-Form Groups learned the training task brake significantly faster than the Form-only Groups. Overlearning did not affect transfer. The one year retention study yielded highly significant retention effects.

The intention of this chapter is to describe the present status of research on the vocational habilitation of the retarded and to propose directions for future efforts. This is not intended as a review of the literature. References are used only to support statements made and to provide the reader with resources for more in-depth study. The vocational training of mentally retarded individuals presently utilizes the resources of three primary disciplines: Rehabilitation, psychology, and education. Research from these disciplines is discussed. Research from two other sources not normally associated with rehabilitation is also discussed in terms of its potential contribution to the field. These are Industrial Management and Industrial Engineering.

An attempt is made in this chapter to emphasize the importance of the relationship between principles developed in laboratory settings and the application of these principles to vocational training. For the reader who is content with existing levels of expectancy presently held by society and by professionals in the field, or who believes that we have succeeded so long as the retarded are kept busy in workshops or placed on any job, this chapter has little value. For those who believe that there is a substantial gap between how the retarded function vocationally, at present, and how they could function, this chapter contains descriptions of what is being done and what could be done to achieve the goal of maximum opportunity for growth.


A procedure to effectively and efficiently train moderately and severely retarded individuals to make fine visual discriminations is described. Results suggest that expectations for such individuals are in need of examination. Implications for sheltered workshops, work activity centers and classrooms are discussed.


Thirty-six mildly and moderately retarded sheltered workshop clients learned to assemble a 12-piece unit for which the parts were color coded. Subjects were randomly assigned to one of three groups, each of which received a different procedure for efficiently using and removing the color cue. Subjects who had the cue removed from each part following three consecutive correct discriminations on that part learned the task in the fewest trials. The procedures were presented within the context of a research program designed to apply and implement findings from basic laboratory research on learning and referred to as middle-road research. Implications were given for the application of the procedures used.

Sixteen moderately and severely retarded individuals learned to assemble a 12-piece bicycle brake and were retested for retention after six months. Performance of the group given verbal cues for the visual discriminations was superior to the performance of the Verbal Cue Group. A highly significant retention effect was found for both groups.


This is a brief comment on the need for society to examine its value structures which function to prevent the retarded from enjoying their inherent right to full participation in that society.


Retarded individuals, working either one or three hours per day for 10 days, under a no-external reinforcement condition, assembled a 14-piece bicycle brake. Mean production for the one-hour group was 24.9 units per hour per person and for the three-hour group, 20.2 units per hour per person. Error rate was very low for both groups. The data were discussed relevant to presently held expectancies and practices in the vocational training and evaluation field.


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