The selected bibliography of physical facilities for handicapped children contains approximately 100 abstracts with indexing information drawn from the computer file of abstracts representing the Council for Exceptional Children Information Center's complete holdings as of November, 1973. Abstracts are chosen using the criteria of availability of document to the user, current applicability, information value, author's reputation, and classical content. Preliminary information explains how to read the abstract (a sample abstract is included which identifies abstract parts), how to use the author and subject indexes, how to purchase documents through the Educational Resources Information Center Document Reproduction Service (two order blanks are provided), and how to order Exceptional Child Education Abstracts (an order blank is provided) in which the abstracts are originally published. Additionally given are a list of indexing terms searched to compile the bibliography and a list of journals from which articles were abstracted for the bibliography. Publication date of documents abstracted ranged from 1961 through 1972. (MC)
PHYSICAL FACILITIES

A Selective Bibliography

November, 1973

CEC Information Center on Exceptional Children
An ERIC Clearinghouse
The Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091

Exceptional Child Bibliography Series No. 634

The work presented or reported herein was performed pursuant to a grant from the Bureau of Education for the Handicapped, US Office of Education, Department of Health, Education, and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the US Office of Education and no official endorsement by the US Office of Education should be inferred.
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With a grant from the US Office of Education, the CEC Information Center was established at The Council for Exceptional Children to serve as a comprehensive source of information on research, instructional materials, programs, administration, teacher education, methods, curriculum, etc. for the field of special education. The Center functions as the Clearinghouse on Exceptional Children in the Educational Resources Information Centers (ERIC) program and also as a member center in the Special Education IMC/RMC Network. In addition, the CEC Center's program includes a commitment to a concentrated effort towards the development of products which will interpret research results into educational methods and practices.

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ERIC accession number. Use this number when ordering microfiche and hard copy
Number of pages. Use this figure to compute cost of hard copy
Institution(s)
Contract or grant number
Descriptors—subject terms which characterize content
Summary
Abstractor's initials

NOTE: EDRS mf indicates microfiche reproduction only.

EC 01 0760
ED 025 864
Hensley, Gene, Ed.; Buck, Dorothy P., Ed.
Cooperative Agreements between Special Education and Rehabilitation Services in the West. Selected Papers from a Conference on Cooperative Agreements (Las Vegas, Nevada, February, 1968).
Western Interstate Commission For Higher Education, Boulder, Colorado
United Cerebral Palsy Research And Education Foundation, Inc., New York;
Rehabilitation Services Administration (DHEW), Washington, D.C.

EDRS mf, hc
VRA-546766

Descriptors: exceptional child education; cooperative programs; vocational rehabilitation; vocational education; administration; mentally handicapped; state agencies; cooperative education; educational coordination; cooperative programs; state federal aid; administrative problems; communication problems; equalization aid; work study programs; handicapped; cost effectiveness.

Five papers discuss cooperative work-study agreements between schools and vocational rehabilitation services in the Western states. Areas discussed include the advantages of cooperative agreements; the forms and disadvantages of third party agreements; the relationship of special education, rehabilitation; and cooperative plans; programs, and agreements; and California's past and present work-study programs for the mentally retarded. Also reviewed are research demonstrating the economic feasibility of vocational training for the educable mentally retarded in the public schools and communication problems in work-study programs. The conference summary considers the purposes, goals, essence of, and necessity for cooperative agreements. (MK)
INDEXING TERMS SEARCHED

Indexing terms used to retrieve information on Physical Facilities from the Center's computer file of abstracts are listed alphabetically:

- Acoustical Environment
- Acoustics
- Architects
- Architectural Barriers
- Architectural Programming
- Architecture
- Building Design
- Building Equipment
- Building Materials
- Building Plans
- Ceilings
- Classroom Arrangement
- Classroom Design
- Classrooms
- Climate Control
- College Buildings
- Color Planning
- Construction Needs
- Construction (Process)
- Design Needs
- Educational Equipment
- Educational Facilities
- Educational Specifications
- Facilities
- Facility Guidelines
- Fire Protection
- Flexible Facilities
- Flooring
- Furniture
- Furniture Design
- Glare
- Heating
- Illumination Levels
- Interior Design
- Interior Space
- Lighting
- Mobile Classrooms
- Movable Partitions
- Offices (Facilities)
- Physical Environment
- Physical Facilities
- Recreational Facilities
- Residential Facilities
- Residential Centers
- Sanitary Facilities
- School Buildings
- School Construction
- School Design
- School Planning
- Schools
- Self Contained Classrooms
- Sheltered Workshops
- Site Development
- Site Selection
- Space Dividers
- Space Utilization
- Structural Building Systems
- Studio Floor Plans
- Windowless Rooms

JOURNALS USED

Abstracts of articles from the following periodicals appear in this bibliography:

- Audiovisual Instruction, National Education Association, Department of Audiovisual Instruction, 1201 16th Street, N.W., Washington, D.C. 20036
- Education and Training of the Mentally Retarded, Council for Exceptional Children, 1920 Association Drive, Reston, Virginia 22091
- Education of the Visually Handicapped, 1604 Spruce Street, Philadelphia, Pa. 19103
- Exceptional Children, Council for Exceptional Children, 1920 Association Drive, Reston, Va. 22091
- Focus on Exceptional Children, Love Publishing Company, 6635 East Villanova Place, Denver, Colo. 80222
- Mental Retardation, 49 Sheridan Avenue, Albany, New York 12210
- New Outlook for the Blind, 15 West 16th Street, New York, N.Y. 10011
- Special Education, 12 Park Crescent, London, WIN 4EQ, England
- TEACHING Exceptional Children, Council for Exceptional Children, 1920 Association Drive, Reston, Va. 22091

The abstracts in this bibliography were selected from Exceptional Child Education Abstracts, Volumes I-V, No. 1.
ABSTRACTS

ABSTRACT 20170
EC 02 3170 ED 031 838
Publ. Date 69 71p.
The IIIF Plan: The Individual with Cerebral Palsy and His Family.
United Cerebral Palsy Association, Inc., New York, New York
EDRS mf hc
Descriptors: exceptional child services; physically handicapped: program planning; cerebral palsy; prevention: demonstration programs; program costs; committees; learning disabilities: followup studies; architecture: transportation: rural areas: professional training: agency role: legislation: professional education: public relations: research needs: cooperative programs
Background information, principles of service, and priorities for action preface a five year plan of operation to provide services for the cerebral palsied. Rationales, objective methods: timetables, financing, and programs are discussed for the following priorities: prevention and early care: comprehensive services for teenagers and adults: children with learning disabilities: information, referral, and followup services: architecture and technological aids: transportation: and service in rural and less populated areas: priorities of implementation which includes consultation and evaluation, influencing legislation, professional education, public information, demonstration projects, action research, and cooperative programming. A financing summary and a policy statement are presented. (RJ)

ABSTRACT 20480
EC 02 0480 ED N.A.
Publ. Date (68) 24p.
Realistic Educational Planning for Children with Cerebral Palsy: Psychological Evaluation.
United Cerebral Palsy Associations, Inc., New New, New York
EDRS not available
Intended for psychologists working with the cerebral palsied, the manual discusses the role of psychological evaluation, qualifications of psychologists, and arrangements for testing. The place of standardized tests in examining young children, and adolescents and adults with cerebral palsy is considered, as are the use of supplementary tests with children and the measurement of emotional and social maturity. Flexibility in using standardized tests is explained; also explained are the evaluation of the examination: interpretation of test results, and special problems with untestable individuals. (I.E)

ABSTRACT 20829
EC 02 0829 ED 032 696
Publ. Date 69 67p.
The Design of a Pre-School Learning Laboratory in a Rehabilitation Center.
Institute of Rehabilitation Medicine, New York University, New York, Medical Center
EDRS mf hc
A developmental setting for multi-handicapped preschool children and the physical layout of the classroom are described. Photographs and drawings of specially designed educational equipment, such as a shallow sand and water table adapted for wheelchair-bound children and an adjustable easel that allows armless children to paint with their feet, show the use of the materials and their design construction. Commentary is included which describes the function and purpose of each learning material along with the history of the school, its medical setting, and the educational philosophy of the program. (WW)

ABSTRACT 20939
EC 02 0939 ED 032 664
Publ. Date Jan 68 57p.
Housing for the Physically Impaired: a Guide for Planning and Design.
Department of Housing and Urban Development, Washington, D. C., Housing Assistance Administration
Problems involved in providing homes for independent living for the physically handicapped, health impaired, or older adults are considered. Basic concepts of low rent housing preface a discussion of neighborhoods and site selection, access, ramps, pedestrian walks, parking, landscaping, and lighting. Guidelines for building design focus on entrances, corridors, stairs, elevators, incinerator chutes, laundry facilities, general storage, and mailboxes. Specifications are suggested for living units including the living room, kitchen, bedroom, bathroom, and storage areas; the design of windows, doors, hallways, floors, lighting and heating units, and custodial quarters, and the provision of telephones, televisions, an emergency signal system, and hot water are also included. Recommendations are made for the following community areas: lounge, recreation room, kitchen, craft area, library, health clinic, washrooms, public telephones, drinking fountains, vending machines, and other areas. A bibliography lists 41 references. (RJ)

ABSTRACT 21289
EC 02 1289 ED 027 721
Publ. Date 68 5p.
Design Criteria for Public School Plants Accommodating the Physically Disabled.
Missouri State Department of Education, Jefferson City, School Building Services
EDRS mf hc
Descriptors: exceptional child education: architectural planning: building design: construction needs: criteria: design needs: facility guidelines: physical design needs: physically handicapped: school planning: school buildings
Criteria are presented for implementation in the design and construction of school buildings and facilities in order to obviate hazards to individuals with physical disabilities. Accommodations for the physically handicapped are considered for the following: public walks, parking lots, ramps with gradients and handrails, entrances, elevators or ramps for multiple story buildings, doors and doorways, stairs and handrails, toilet rooms and facilities, water fountains, and floors. (FS)

ABSTRACT 21335
EC 02 1335 ED 028 617
Publ. Date 66 217p.
Educational Facilities for the Visually Handicapped.
California University, Berkeley, Department of Architecture
EDRS mf hc
A brief description of the work process, and the results of the study by eighteen
third year students in the Department of Architecture, University of California, Berkeley, is presented. The problem, process, and organizational procedure of the study are included. Additional information includes: research phase, requirements, interactions, decomposition and structuring, form solutions and diagramming, final form solutions, and summary. The importance of architectural form and organization to the blind child is emphasized. The degree and nature of separation of groups and of individual blind children is noted to play an important part in effective teaching and therapy. Information in these areas and many others is accumulated and synthesized into an architectural reflection of the factors needed to develop the multiply handicapped blind child to his fullest mental and physical potential. (RK)

ABSTRACT 21396
EC 02 1396 E D N.A. Publ. Date Sep 69 4p. Fox, Joshua Breaking Communication Barriers. EDRS not available Special Education: V58 N3 P23-6 Sep 1969

Descriptors: exceptional child education: cerebral palsy; communication (thought transfer); information sources; instructional materials; typewriting: educational equipment: individual needs

The various communication aids now available for the cerebral palsied are described including indicators, typewriter aids, expanded keyboard typewriters, and poissum-controlled typewriters. Also discussed are training in the use of aids, future aids now under development, and possibilities for financial assistance for the purchase of aids. (RD)

ABSTRACT 21944
EC 02 1944 ED 036 923 Publ. Date Apr 69 69p. Educational Specifications for Hope School for Exceptional Children and Youth. Jackson County Public Schools, Marian, Florida EDRS m.fhc

Descriptors: exceptional child education: mentally handicapped: educational specifications: school design; program proposals: physical environment: physical design needs: physical facilities: school construction: space utilization: classroom design

A presentation of the Hope School's physical plant and program specifications is introduced with a listing of the specifications committee, a history of the school, the needs of the children served, and a philosophy of teaching mentally handicapped children. Areas discussed are school-wide specifications, the administrative complex, the diagnostic room, layout for the primary development complex, a learning environment complex, and a training readiness workshop. Additional considerations are for custodial storage space, school lunch services, the site plan, space requirements, space relationship diagrams, and an overall evaluation of the proposal. A glossary of terms and a bibliography are provided. (JM)

ABSTRACT 21902
EC 02 1902 ED 036 941 Publ. Date (69) 22p. An Adaptive Playground for Physically Disabled Children with Perceptual Deficits: The Magruder Environmental Therapy Complex. Orange County Board of Public Instruction, Orlando, Florida Office of Education (DHEW), Washington, D. C., Bureau of Elementary and Secondary Education EDRS m.fhc


Designed as a specialized play area for physically handicapped preschool children with perceptual deficits, the Magruder Environmental Therapy Complex (ETC) is described as a means to create an environment in which these children could function freely. Pictures are used to show children using the equipment and the architectural aspects of construction. A brief summary, the problem defined, the goal of ETC, the basic perceptual motor experiences of ETC, principle features of ETC and physical problems, testing plans designed to evaluate the effects of ETC, and early observations by teachers, therapists and aides indicating the benefits of the free, unstructured play area are detailed. (WW)

ABSTRACT 21964
EC 02 1964 ED 036 943 Publ. Date (68) 87p. Planning a Special Education Building for Chester County, Pennsylvania. Chester County Schools, West Chester, Pennsylvania Office of Education (DHEW), Washington, D. C., Bureau of Elementary and Secondary Education EDRS m.fhc BR-66-2125


Chester County (Pennsylvania) is described in terms of its demography and its school system; its special education program is also reviewed. Placement and program organization are outlined for the trainable mental retarded, brain injured, socially and emotionally disturbed, and physically, visually, or aurally handicapped. The need for program improvement is explained, including the need for facilities, equipment, staff, and transportation. The planning process and conclusions are discussed as are 14 recommendations for the design of a county special education facility. Nine consultants' opinions are presented concerning a central facility as opposed to dispersion of classes; 10 consultants' reports are appended. An additional sheet provides the architectural plans. (JD)

ABSTRACT 22018


Information on individual instruction for children who are homebound or hospitalized and in need of supplementary programs is defined as applied in North Dakota. The organization of the program, eligibility of pupils served, referral procedures, the responsibility of the local school administrator, the responsibility of the department of public instruction, qualifications and responsibilities of the teacher, special equipment requirements, and parent cooperation are discussed. Also treated is the status of a child on approved home study programs and an essay on why special education programs are needed. (WW)

ABSTRACT 22027

Descriptors: exceptional child education: physically handicapped: educational research: educational needs: curriculum development: personnel selection: program evaluation: transportation: school design: educational equipment: research reviews (publications): educational programs

To provide information on educational modifications for physically disabled chil-
The Role of the Physical Environment

Physical Facilities

Current thinking on the role of the physical environment in special education is summarized in the report. The material has been synthesized into a position that has been developed through widespread contacts with special educators and architects interested in the problem. The paper develops this position in nine topical areas: the concern, exceptionality, learning disabilities, special education, role of environment, environmental variables, educational conceptualizations, program factors, and directions. The primary attempt has been to underscore the issues and to lay some ground-work for future efforts. (RK)

ABSTRACT 22073
EC 02 2073 ED 032 739 Publ. Date Jan 66
A Master Plan Program of Requirements for the Francis Jefferson Coates Country Campus of the Missouri School for the Blind.


EDRS mf/he

Descriptors: exceptional child education; visually handicapped; building design; campus planning; educational specifications; facility case studies; facility expansion; facility guidelines; human engineering.

Facility requirements are presented for the indoor and outdoor living and learning facilities and areas of the proposed Francis Jefferson Coates Country Campus of the Missouri School for the Blind in St. Louis. The requirements were developed in view of the major goals and purposes of the institution, to provide exposure to a variety of learning and recreational experiences, which are not generally available within the confines of the city school, and thus broaden the awareness of students about nature and outdoor activities. The life. Diagrammatic representations of proposed facilities and area relations are included. (FS)

ABSTRACT 22084
EC 02 2084 ED 024 249 Publ. Date June 66

EDRS mf/he

Descriptors: physically handicapped; building design; parking areas; design needs; sanitary facilities; environmental criteria.

A physical handicap is defined as an impairment which affects an individual to the extent that special facilities are needed to provide for his safety. Facilities include the special design of parking lots, building approaches and entrances; stairs; ramps; doors; and multilevel floors; corridors; and rooms with sloping floors; fixed seats, or both. Other safety areas include special consideration of sanitary facilities, drinking fountains, telephones, location of switches, room identification, and installation of elevators. (ID)

ABSTRACT 22110
EC 02 2110 ED 025 265 Publ. Date Jan 67
Facilities for the Educationally Handicapped.


EDRS mf/he

Descriptors: exceptional child services; mental retardation; school building; classroom arrangement; classroom design; design needs; educationally disadvantaged; learning disabilities; physical education facilities; state aid; state standards.

California state facility and program requirements for educationally handicapped pupils in California are detailed. Contained is a step by step outline of procedures to be followed for establishing such facilities as well as some background information for relating classroom size standards to three general categories of educationally handicapped. A section entitled Educational Programs and Facilities contains a discussion of legal information, enrollment projections, program objectives, and facility standards. Space diagrams and state aid forms are also included. (NI)

ABSTRACT 22188
EC 02 2188 ED 037 840 Publ. Date Apr 69
Exceptional Child Education: DeSoto County Board of Public Instruction, Arcadia, Florida.

DeSoto County Board of Public Instruction, Arcadia, Florida.

EDRS mf/he

Descriptors: exceptional child education; mentally handicapped; program guides; special education; building conversion; classroom arrangement; classroom design; design needs; educationally disadvantaged; learning disabilities; physical education facilities; state aid; state standards.

Educational specifications of the program for secondary education mentally handicapped students in DeSoto County (Florida) are described. Specifications for the overall philosophy, purposes, objectives, activities, space and equipment requirements, and special considerations are provided in the following areas: academics, food preparation, clothing maintenance, home living, care of invalid and infirm, grooming, horticulture and yard maintenance, home maintenance, leisure time activities, leisure workroom, and equipment storage, and speech therapy. (RD)

ABSTRACT 22219
EC 02 2219 ED 037 871 Publ. Date Dec 69
Guidelines for Administration of an Educational Program for Physically

Physical Facilities
Handicapped Children in the Dayton-Miami Valley Region, Final Report.
Maryland University, College Park. Interprofessional Research Commission on Pupil Personnel Services
Office of Education (DHEW), Washington, D. C., Bureau of Elementary and Secondary Education
EDRS mf,he

Descriptors: exceptional child education; physically handicapped; educational programs; program administration; program planning; regional programs; parent education; transportation; financial support; student placement; physical facilities; organization; community education; student evaluation; administrator guides; Ohio

The report discusses an Ohio regional program for the education of the deaf, blind, and physically handicapped dealing basically with solutions to organizational problems. Recommendations are made for a five-county area with the following considerations and arrangements: the location and responsibility for the education of physically handicapped children in the Dayton-Miami region; the form and content of a multistate agreement; and management and program considerations such as financing, transportation, evaluation and placement, parent and community education and information, registry and census of handicapped children, and physical facilities. Also included are recommendations for the organizational structure of the regional office for educating handicapped children, future steps, and appendices containing pertinent laws, agreements, and contracts. (JM)

ABSTRACT 22434
EC 02 2434 ED 034 385
Publ. Date 67 66p.
Yuker, Harold E., and Others
Human Resources Center, Albertson, New York
EDRS mf,he
OEG-2644
HRS-9

Descriptors: exceptional child education; physically handicapped; transportation; administration; commuting students; driver education; educational equipment; financial support; mechanical equipment; mobility aids; motor vehicles; program costs; student transportation

Guidelines for the transporting of physically handicapped children to school are given along with the types of vehicles, selection and training of drivers, problems of traveling time, and administration and financing of a transportation service. Vehicles described and compared include standard school buses, adapted buses, vans and compact buses, taxis, automobiles, and station wagons. The qualifications, selection, duties, and responsibilities of motor vehicle drivers are outlined. A reference list and appendix is included. (TG)

ABSTRACT 22345
EC 02 2415 ED 034 384
Publ. Date 67 38p.
Yuker, Harold E., and Others
Modification of Educational Equipment and Curriculum for Maximum Utilization by Physically Disabled Persons. The Transportation of Physically Disabled Students.
Human Resources Center, Albertson, New York
EDRS mf,he
OEG-2644
HRS-10

Descriptors: exceptional child education; physically handicapped; transportation; administration; commuting students; driver education; educational equipment; financial support; mechanical equipment; mobility aids; motor vehicles; program costs; student transportation

Guidelines for the transporting of physically handicapped children to school are given along with the types of vehicles, selection and training of drivers, problems of traveling time, and administration and financing of a transportation service. Vehicles described and compared include standard school buses, adapted buses, vans and compact buses, taxis, automobiles, and station wagons. The qualifications, selection, duties, and responsibilities of motor vehicle drivers are outlined. A reference list and appendix is included. (TG)

ABSTRACT 23066
EC 02 3066 ED N.A.
Publ. Date 68 136p.
Gutman, Ernest M.; Gutman, Carolyn R.
Wheelchair to Independence: Architectural Barriers Eliminated.
EDRS not available
Charles C Thomas, 301-322 East Lawrence Avenue, Springfield, Illinois 62703 (5.75).

Descriptors: physically handicapped; architectural barriers; building design; wheelchair; physical environment; interior design; campus planning; school design; home furnishings

Means of eliminating architectural barriers for wheelchair users, to help solve some problems of daily living, education, and employment, are suggested and recommended to architects and builders. Architectural obstructions in both residential and public buildings are outlined, together with solutions. The book discusses adaptations for the home (bathroom, bedroom, kitchen, dining room, floors, stairs), and various types of residences. Photographs illustrate many of the conveniences. Specifications for a made-to-order house for a wheelchair user are presented. Lists of recommended standards for public buildings and of motels with wheelchair units are included in a discussion of current building trends. A review of campus facilities at colleges and universities includes suggested specifications for structures and a list of institutions currently employing wheelchair students. Adaptations for public schools, hospitals, and the telephone are also suggested. (KWI)

ABSTRACT 22927
EC 02 3297 ED 036 127
Publ. Date 66 15p.
Fearn, Donald
Architectural Barrier Program of the National Society for Crippled Children and Adults.
EDRS mf,he

Descriptors: physically handicapped; architectural barriers; building design; design needs; facility guidelines; toilet facilities; public facilities

The environmental needs and problems of the physically handicapped are discussed, with particular concern for architectural barriers in present and future public buildings. Dialogue reveals the establishment of standards and constraints of which the public must become aware. Overviewed with emphasis are toilet facilities, recreational and cultural facilities. (TG)

ABSTRACT 23436
EC 02 3436 ED 041 407
Publ. Date May 67 69p.
American Association on Mental Deficiency, Washington, D. C.; American Institute of Architects, Washington, D. C.; National Association for Retarded Children, New York, New York; Rehabilitation Services Administration (DHEW), Washington, D. C., Division of Mental Retardation
EDRS mf,he
National Association for Retarded Children, 420 Lexington Avenue, New York, New York 10017.

Descriptors: exceptional child services; institutional facilities; architectural programming; design needs; mentally handicapped; building design; administration; architects; program planning; space utilization; residential programs; environmental influences; taxonomy; educable mentally handicapped; trainable mentally handicapped; custodial mentally handicapped

Conference participants consider the role of the architect and the programmer in planning and constructing facilities for the mentally handicapped. David Rosen discusses the design problems of state institutions with particular reference to the Woodbridge State School in New Jersey; Gunnar Dybwad describes the need of the programmer for the architect; and Arnold Gangnes treats the need of
the architect for the programmer. The architectural program is defined as a means of communication with the client by Edwin Cromwell, and the programming process is described by John Garber. Also provided are David Ray's and John Truemper's considerations of the programmer and architecture in action and J. Eugene McKee's treatment of planning for community facilities. Two forewords, excerpts from informal discussions, and a list of registrants are included. (DD)

ABSTRACT 23550
EC 02 3550  ED 042 293
Publ. Date 68  4p.
Haring, Norris G. and Others
University of Washington Child Development and Mental Retardation Center Experimental Education Unit
Washington, University, Seattle. Child Development And Mental Retardation Center
EDRS mf.hc
Descriptors: exceptional child education: mentally handicapped: educational facilities: architectural programing: building plans: design needs
The physical facilities of the education unit of the child development and mental retardation center at the University of Washington are described. A floor plan is appended. (DD)

ABSTRACT 30003
EC 03 0003  ED N.A.
Publ. Date 70  6p.
Watson, Roberta
A Return to Pioneer Days.
EDRS not available
Teaching Exceptional Children: V2 N4 P170-S Sum 1970
Descriptors: exceptional child services: handicapped children: educational equipment: voluntary agencies: telephone communications industry: Telephone Pioneers of America
Described are projects of the Telephone Pioneers of America, a group of current and former telephone company employees who design and build special equipment for handicapped children on a volunteer basis. Some of the equipment designed for cerebral palsied children includes a gadget board of basic household equipment and mobility and support equipment. Also described are projects that create talking book machines and an audio ball for blind children, and various communicating devices. Addresses of 13 regional offices of the Pioneers are listed. (KW)

ABSTRACT 30102
EC 03 0102  ED N.A.
Publ. Date 68  186p.
Rosenberg, Charlot
Assistive Devices for the Handicapped.
American Rehabilitation Foundation
Minneapolis, Minnesota
National Medical Audiovisual Center
Bethesda, Maryland
EDRS not available
American Rehabilitation Foundation
1000 Chicago Avenue
Minneapolis, Minnesota 55404 (2.50.
Physical Facilities
The manual of aids for the handicapped presents over 100 inexpensive devices designed to assist in daily living, learning and communication, work, and leisure time activities. Each of the aids is illustrated by a photograph, described as to the possibilities of usage, and provided with complete building methods and material information. The detailed directions of construction for each device are accompanied by instructive diagrams. A related annotated bibliography and index are also included. (RD)

ABSTRACT 30223
EC 03 0223  ED N.A.
Publ. Date Sep 70  3p.
Barden, John
Furniture for the Schoolroom.
EDRS not available
Special Education: V59 N3 P11-3 Sep 1970
Descriptors: exceptional child services: cerebral palsy: classroom furniture: furnitute design: physically handicapped
Recounted is the history of the development of classroom furniture designed for the cerebral palsied student, but which can also be used by other students. Five items are described: an L-shaped desk, a table, two typing tables, and an aqua chair for use in hydrotherapy pod. Each item is adjustable in height and/or angle. A chair with over 10,000 possible variations in seat and back height and angle is also described. (KW)

ABSTRACT 30318
EC 03 0318  ED N.A.
Publ. Date Oct 70  4p.
Bernardo, Jose R.
Architectural Design for Blind Persons.
EDRS not available
New Outlook for the Blind: V64 N8 P262-5 Oct 1970
Descriptors: visually handicapped: architectural character: building design: adjustment (to environment): architectural programing
Discussed are the ways in which an architect must alter his priorities and redefine architecture in non-visual terms when designing buildings for blind persons. It is suggested that he consult with blind persons to determine how the environment he creates can convey information through the senses other than sight. Some possibilities for change are recommended to exploit non-visual clues, but the dangers of over protective and special environment are mentioned. (KW)

ABSTRACT 30424
EC 03 0424  ED 043 988
Publ. Date Feb 68  107p.
McGowan, John F.: Gust, Tim
Preparing Higher Education Facilities for Handicapped Students.
Missouri University, Columbia
The report summarizes significant events since 1959 in the University of Missouri's program to modify its physical plant and educational facilities and to organize and expand its student personnel services to enable handicapped students to attend the University. Reviewed are the program plan. site and building modifications, student services, and the current status of the program and recommendations for the future. Appendices include photographs of campus modifications, and building, facility, and bus specifications. (KW)
The plan details recommended procedures for the construction of mental retardation facilities in New Jersey. The Mental Retardation Planning Board and the State Board of Control are described and members listed. Stated are methods of administration of the planning and construction program, and the basic program goals and policies. Four major regions of the state are delineated for planning purposes. Existing Services and Facilities are inventoried in detail. The final chapter outlines assigned priorities for construction applications from the four service regions. (KW)

**ABSTRACT 30848**

EC 03 0084 ED N.A. Publ. Date Dec 70 8p. Cruickshank, William M.; Quay, Herbert C. 

Learning and Physical Environment: The Need for Research and Research Design EC N.A. 

EDRS not available 

Exceptional Children; V37 N4 P261-8 Dec 1970 

Descriptors: exceptional child education; educational facilities; architectural programing; research needs; school buildings; building design; classroom arrangement; research methodology; physical environment 

The growing concern about planning and providing effective physical facilities for special education programs is presented. Particular emphasis is focused on the adequacy of decisions made by special educators and architects regarding the nature of the physical environment in the absence of empirically obtained evidence. Supporting the need for such research, some of the difficulties encountered-the isolation of variables, management techniques, and designs-are discussed. (Author)

**ABSTRACT 31127**

EC 03 1127 ED N.A. Publ. Date Dec 70 3p. Pomorsky, Diana 

Rethinking the Bedroom Image Special Education; V59 N4 P24-6 Dec 1970 

Descriptors: handicapped children; building design; residential care; physical environment; architectural programing; environmental influences; institutionalized (persons); bedroom environment 

The importance of the bedroom environment in residential special schools, and the need for increased attention to its architectural design are emphasized. The author reports her study of 20 residential schools housing various types of handicapped children. Each school was visited and interviewed to conduct the study of the staff and children. Characteristics of the bedroom environments were analyzed including groupings per bedroom, types of social relationships, group interaction, and the significance of the bed space. (RD)

**ABSTRACT 31129**

EC 03 1129 ED N.A. Publ. Date Jan 71 4p. Rudkin, S. W. 

Cane Travel in Winter. EDRS not available 

New Outlook for the Blind; V65 N1 P8-11 Jan 1971 

Descriptors: visually handicapped; visually handicapped orientation; visually handicapped mobility; travel training; climatic factors; cues; environmental influences 

Observations on mobility, orientation, and snow travel for the blind are presented by a peripatologist in Canada. The difficulties presented by winter conditions, especially the variability of conditions, are noted, and modifications in travel technique suggested. Weather and physical clues to help orient the blind person are explained. (KW)

**ABSTRACT 31211**

EC 03 1211 ED N.A. Publ. Date Jul 67 20p. Wiedel, Joseph W. 

Development and Standardization of Symbols and Improvement in the Design of Tactile Illustrations for the Blind. 

Maryland University, College Park, Department of Geography 

Rehabilitation Services Administration (HDEW), Washington, D. C. 

EDRS not available 

University of Maryland, Department of Geography, College Park, Maryland 20740. 

Descriptors: visually handicapped; visually handicapped orientation; tactile adaptations; map skills; research projects; design needs; material development 

Reported are the results of a pilot study, preliminary to a longer research project on tactile mapping, dealing with the design of large-scale mobility maps that can be reproduced in substantial quantity at modest cost. Three methods of reproduction (thermoform, silk screening, thermography) were selected and tested with both blind and blindfolded sighted persons to obtain information on the quality of selected symbols, components of design, and methods of reproduction. Based on the results, six areas of immediate concern were established: linear scale, size, starting point, simplicity in design, brailing or labeling, and training in map reading. (KW)

**ABSTRACT 31259**


Illinois State Department of Mental Health, Springfield 

EDRS Mil.dce. 

Descriptors: exceptional child services; mentally handicapped; emotionally disturbed; state programs; statistical data; facilities; residential programs; institutionalized (persons); personnel; professional personnel; financial support; Illinois 

The report provides statistical data useful to persons responsible for providing special education and related services to mentally retarded and emotionally disturbed children in Illinois. The data examine children and adolescents in these categories, aged 5-20 years, who are receiving special educational services primarily in the Department of Mental Health residential facilities or on an outpatient basis. The data describe the facilities, resident population, students enrolled in programs, outpatient population, personnel, and funding. (KW)
EDRS NOT AVAILABLE

ABSTRACT 31262
EC 03 1262 E D 046 177
Pub. Date 69 46p.
Wickersham, Julieta M. and Others

Educational Specifications for the Exceptional Child Center: Facility for the Trainable Mentally Retarded.

Dade County Schools, Jacksonville, Florida State Department of Education, Tallahassee
EDRS MF. HE

Descriptors: exceptional child education; trainable mentally handicapped; architectural planning; educational equipment; student transportation; architectural barriers; educational specifications; mentally handicapped; program design; classroom environment; classroom arrangement

The report summarizes the findings of a program for desensitization within an engineered classroom. A program for desensitization was performed with a 6 year old withdrawn, emotionally disturbed boy. Twelve sessions were conducted focusing on the story of Paul Bunyan and controlled stimuli. Results were that at the end of 6 weeks, the boy made a communicative gesture and easily audible comments in an anxiety provoking situation. Aspects of desensitization as a behavior modification technique are explored. (RD)

ABSTRACT 31314
EC 03 1314 E D N.A.
Pub. Date 70 54p.
Rapport, Virginia, Ed.

Learning Centers: Children on Their Own.

EDRS not available

Association for Childhood Education International, 3615 Wisconsin Avenue, N. W., Washington, D. C. 20016 (52.00).

Descriptors: learning experience; teaching methods; classroom environment; individualized instruction; student teacher relationship; classroom arrangement; educational technology; educational research; learning centers

Nine articles examine various aspects of the learning center concept. Personalized teaching and individualized learning, and the changing role of the teacher discussed. Organization for individual work, the evaluation and recording of children's activities, and the diagnosis of educational need are considered in relation to the learning center. Pictures of some learning stations are presented. Other chapters deal with the utilization of educational hardware, dealing with space in the open area teaching concept, and learning activities outside the school walls. (KWI)

ABSTRACT 31358
EC 03 1358 E D N.A.
Pub. Date Jan 71 3p.
Kravetz, Richard J.; Forness, Steven R.

Out of the Classroom: The Special Classroom as a Desensitization Setting.

EDRS not available

Exceptional Children, V 37 N 5 P393-94 Jan 1971

Descriptors: exceptional child research; behavior change; emotionally disturbed; environmental influences; stimulus behavior; special classes; engineered classroom; desensitization

A program of desensitization within an engineered classroom was performed with a 6 year old withdrawn, emotionally disturbed boy. Twelve sessions were conducted focusing on the story of Paul Bunyan and controlled stimuli. Results were that at the end of 6 weeks, the boy made a communicative gesture and easily audible comments in an anxiety provoking situation. Aspects of desensitization as a behavior modification technique are explored. (RD)

ABSTRACT 31634
EC 03 1634 E D N.A.
Pub. Date 70 120p.
Nellist, Ivan

Planning Buildings for Handicapped Children.

EDRS not available

Charles C Thomas, Pultisher, 301-327

Physical Facilities
How to Build Special Furniture and Equipment for Handicapped Children.


ABSTRACT 31656
EC 03 1656 ED N.A. Publ. Date 70 88p.

Charles C Thomas Publisher, 301-327 East Lawrence Avenue, Springfield, Illinois 62703 (S6.50).

Descriptors: physically handicapped: equipment: furniture: design: design needs

Instructions and specifications are given for the construction of furniture and equipment for handicapped children.

Other items mentioned include: a highchair, the floor, the board, and slant board.

(KW)
The current search and development centers: univers-
federal aid: mentally handicapped: facili-
D. C. 20402 (S1.00).
Superintendent
Committee on Mental Retardation
gram.
Publ. Date 71

and information on
specifications for buildings and facilities.
handicapped children. American standard
directors in employing special personnel.
services for the handicapped. Appended
the components
each exceptionality. Also delineated are
described
federal

The handbook for administrators of spe-
cial education programs in the state of
Washington covers the philosophy and
administration of special education, de-
defining the areas of state, local, and joint
administrative responsibilities. Guidelines
for special programs for the handicapped
are set forth, specifying the definition,
eligibility requirements, class load, pro-
graming, and facilities and equipment for
each exceptionality. Also delineated are
the components of specialized school
services for the handicapped. Appended
are a guide for superintendents and
directors at employing special personnel.
State laws pertaining to the education of
handicapped children. American standard
specifications for buildings and facilities,
and information on federal funds for
materials for the visually handicapped. (KW)

ABSTRACT 32217
EC 03 2217 ED 050 503
Publ. Date 71
106p.
Mental Retardation Construction Pro-
gram.
Department of Health, Education, and
Welfare, Washington. D. C. Secretary’s
Committee on Mental Retardation
EDRS mf Superintendant of Documents.
Washington. D. C. 20402 ($1.00).

Descriptors: exceptional child services;
federal aid: mentally handicapped: facili-
ties; directories; federal legislation: re-
search and development centers; univers-
ities; Mental Retardation Facilities and
Community Mental Health Centers Con-
struction Act of 1963.

The current status of three federally
supported construction programs of facili-
ties for the mentally handicapped is re-
viewed. The programs discussed are de-
signed to provide assistance in the areas
of continuing research into causes and
means of prevention of mental retarda-
tion, interdisciplinary training of profes-
sional personnel, and establishment of
community facilities. Research centers
operating under the program (P.L. 88-
164) are described including location,
and type and funding statistics. Univer-
sity-affiliated facilities for the mentally
handicapped set up to provide clinical
training of professional personnel are
examined. A brief description of each
facility reviews the types of facilities and
programs which have been supported
with the funds and the current status of
their construction. Community facilities
approved for federal assistance under the
construction program are listed by state
and pertinent data such as type of facility,
services available, retarded served, and
estimated costs, are supplied in chart
form. (CD)

ABSTRACT 32529
EC 03 3259 ED N.A.
Publ. Date 68
23p.
Report of the Seminar on Community
Residences and Foster Home Care.
Canadian Association for Retarded
Children, Toronto, Ontario
EDRS not available
Canadian Association for Retarded
Children. 149 Alcorn Avenue. Toronto.
Ontario, Canada.

Descriptors: mentally handicapped: resid-
tial care: facilities: foster family;
community programs: conference re-
ports: Canada
The report of a seminar held February 2-
4. 1968 concerns community residences and
foster home care for the mentally
retarded in Canada. The former is de-
fined as a residence operated generally
by an agency, with a more formal pro-
gram than a foster home and which
allows retarded persons to live indepen-
dently and in the community. Each type
of facility is described, including physi-
cal structure, staffing, and services.
Briefly reviewed are the existing facilities
for the mentally retarded in each of the
Canadian provinces. A statement lists
the essential issues concerning communi-
ity residence and foster home care on
which there was general agreement among the seminar delegates. (KW)

ABSTRACT 32671
EC 03 2671 ED N.A.
Publ. Date 70
241p.
Albers. Vernon M.
The World of Sound.
EDRS not available
A. S. Barnes and Company. P. 0. Box
421. Cranbury. New Jersey 08512
($5.95).

Descriptors: acoustics: physics: aural
stimuli: audio equipment
The basic introduction to the science of
sounds, or acoustics, is intended for per-
sons who must deal with problems in
acoustics but who do not have the phy-
sics, and mathematics backgrounds neces-
sary to use other available textbooks in
the field. The generation, propagation,
detection, and measurement of sound are
described without the use of mathemat-
ics, although in some instances simple
mathematics and material is appended.
Charts, drawings, and dia-
grams accompany the discussion of the
nature of sound, units and reference
quantities used in measuring sound,
speech and hearing, sound propagation,
noise, transmission of sound measurement
and analysis, and audiometry and noise
hazard. Also covered are sound record-
ing and reproduction, the physics of
music, musical instruments, room acous-
tics, underwater sound, the utilization of
sound by animals, and careers in acous-
tics. Included material shows the rela-
tionship between acoustics and the var-
ious arts and sciences. (KW)

ABSTRACT 32684
EC 03 2684 ED 051 620
Publ. Date 71
320p.
Grall. Terrand Bernard
Designing for the Non-Amhulatory.
Wisconsin University. Madison
EDRS mf.
Author's Masters Thesis Submitted to
the University Of Wisconsin.

Descriptors: physically handicapped:
mobility aids: design needs: masters
theses
Presented is a matter of organizing and
grouping performance information to
support the design and development of
physical movement aids for non-ambula-
tory persons which enable them to ambu-
late or at least change their position in a
semiautomatic fashion. Hierarchical
levels of psychobiologic deficiency and
corresponding condition variables are
given for the various physically handi-
capped conditions which result in non-
ambulation. Information on performance
characteristics is intended to be used in
design research for determining abilities
and needs of specific non-ambulatory
groups at all levels of non-ambulation
and for determining the characteristics
which the proposed dynamic artificial
aids must possess. A case study using
the data provided is intended to illustrate
that a psychobiologic approach to design
is possible and to indicate the type of
reasoning which needs to be followed in
developing design solutions. (KW)
ABSTRACT 32813  
EC 03 2813  ED N.A.  
Publ. Date (69)  82p.  
Wheeler, Virginia Hart  
Planning Kitchens for Handicapped Homemakers  
New York University Medical Center, New York, Institute of Physical Medicine and Rehabilitation  
Vocational Rehabilitation Administration (DBHEW), Washington, D. C.  
EDRS not available  
New York University Medical Center, Institute of Physical Medicine and Rehabilitation, 550 First Avenue, New York, New York 10016 ($2.00)  

Descriptors: physically handicapped; adults, wheel chairs; equipment utilization; design needs; home economics; daily living skills  

Designed to be used in the vocational rehabilitation of homemakers, the handbook was planned especially for severely disabled women who could not return to their usual duties unless their home kitchens were substantially modified. The importance of kitchen planning and the need to elicit as much information as possible about family and homemaker use of the area are discussed with the aim of working out arrangements ideal for each individual. Each item in the kitchen, from appliances to furniture, utensils, is considered and ways are suggested to make the most of limited space and money. Attention is directed to the need for exact measurements of both the patient's kitchen and physical range of motion so that redesigning can be done, even by long distance. Although most of the book concerns the wheelchair homemaker, one chapter considers adaptations for the ambulatory woman. Suggestions for a source list of equipment and appliances are included. (RJ)

ABSTRACT 33158  
EC 03 3158  ED N.A.  
Publ. Date Aug 71  4p.  
Kreger, Kenneth C.  
Compensatory Environment Programming for the Severely Retarded Behaviorally Disturbed  
EDRS not available  
National Mental Retardation; V9 N4 P29-32 Aug 1971  

Descriptors: mentally handicapped; behavior problems; institutional environments; behavior change; milieu therapy; environmental influences  

A Compensatory Environment Program was developed to provide a minimally stressful living environment and training services for severely and profoundly retarded adult residents who exhibited severe behavioral problems. The program emphasized reduction of environmental stress by altering utilization of living space to reduce congestion and by increasing the availability of variety of sensory stimulation. Results indicated that manipulation of environmental living conditions is demonstrably one of the most effective approaches to changing the behavior of this group of severely disturbed residents. (Author)

ABSTRACT 33196  
EC 03 3196  ED 054 563  
Publ. Date Oct 70  13p.  
Hawaii State Plan--Facilities for the Mentally Retarded  
Hawaii State Department of Health, Honolulu, Hospital and Medical Facilities Branch  
EDRS mf hc  

Descriptors: exceptional child services; mentally handicapped; state programs; facilities; state surveys; educational facilities; program planning; Hawaii  

Prepared annually, the Hawaii State Plan is a public document for guiding the development of a public housing program and necessary services and facilities for the mentally retarded. Using quantitative and narrative information it describes present services, presents a program for development of facilities to meet needs, and serves as the basis for allocation of funds under P.L. 88-164. Chapter I covers purpose, authority, organization of Health Department, the State Advisory Council, and goals of the plan. Demographic, geographic, and political characteristics of Hawaii are summarized in Chapter 2. Discussed next are program needs and the planning process, factors influencing planning, characteristics of the retarded, scope of the plan, range of services, and relationship to other planning efforts. Chapter 4 states planning considerations unique to Hawaii, delineates planning areas, and examines percentage of retarded and special education classes and related services provided. Chapter 5 contains an inventory and analysis of existing facilities and services and a review of programmed facilities and priorities. Information on methods of administration, revised laws of Hawaii, and several special projects is appended. (KW)

ABSTRACT 33178  
EC 03 3178  ED 054 558  
Publ. Date 71  17p.  
Coleman, Thomas W., Jr.; Hyman, Milton  
A Preliminary Study/Survey for Demonstration Community Housing Programs for the Adult Mentally Retarded, Physically Handicapped and Mentally Ill  
Wayne State University, Detroit, Department of Special Education and Vocational Rehabilitation; Michigan State Department of Social Services, Lansing  
EDRS mf hc  

Descriptors: handicapped; housing; housing needs; residential programs; public housing; building design; public facilities; literature reviews; adults; surveys; legislation; Michigan  

A study was conducted for the Michigan State Housing Development Authority to gather background data necessary to initiate prototype community housing for mentally and physically handicapped independent adults. An extensive survey and analysis of the literature and existing facilities, the problem of mental retardation, including legislation supporting conversion of residences for the retarded, attitudes toward residential care, and types of residential facilities, was covered. Second, the problem of the physically handicapped was reviewed, including architectural and transportation barriers, residential and supporting service needs, and a brief description of some housing programs. Status of residential programs for the mentally ill was also studied. Need for community housing was defined and documented, criteria describing the target population identified, pertinent socioeconomic and geographic factors analyzed, similar programs and facilities identified and evaluated, and fundamentals involved in designing a housing project and services described. It was concluded that support for such programs exists among parents, the handicapped, and citizens, but that existing programs are often isolated and inadequate. Twenty-four recommendations concerning public housing for the adult handicapped are made. (KW)

ABSTRACT 40249  
EC 04 0249  ED 055 404  
Publ. Date 71  124p.  
Abeson, Alan; Blacklow, Julie  
Environmental Design: New Relevance for Special Education  
Council for Exceptional Children, Reston, Virginia  
EDRS mf hc  
Council for Exceptional Children, 1920 Association Drive, Reston, Virginia 22091 ($6.75). 22202 ($6.75)  

Descriptors: exceptional child research; handicapped children: environmental
research; educational facilities; architectural programming; design needs; school buildings; research reviews (publications); national surveys; classroom environment; educational planning; building design.

Educational facilities for handicapped children are examined in terms of environmental design planning and needs. The first of four sections reports basic findings of the project Physical Environment and Special Education: An Interdisciplinary Approach to Research, which appraised by questionnaires and site visits the present status of special education facilities in the United States. Presented are general findings and implications for design planning based on data gathered relating to student integration, community and parent involvement, the learning space, the educational program and activities, social adjustment, observation systems, transportation, and administrative planning. The second section focuses on planning mechanisms and strategies from the point of view of both architects and special educators. Some individual approaches to planning are presented and mechanics of involving people in the planning process are discussed. The third section contains some specific solutions to environmental problems, with accompanying illustrative drawings. The final section presents selected research findings related to physical and psychological effects of environmental manipulation, research needs, and methodologies which can be used to conduct further research in this area. (KW)

ABSTRACT 40368
EC 04 0368 ED 056 423
PUBL. DATE 70
ABESEN, ALAN; BERenson, BERTRAM
PHYSICAL ENVIRONMENT AND SPECIAL EDUCATION: AN INTERDISCIPLINARY APPROACH TO RESEARCH. FINAL REPORT.
COUNCIL FOR EXCEPTIONAL CHILDREN, ARLING- TON, VIRGINIA
BUREAU OF EDUCATION FOR THE HANDICAPPED (DHEW/OE), WASHINGTON, D. C.
EDRS MF,HC OEG-2-7-070566-3026 BR-7-0566

Descriptors: exceptional child research; handicapped children; educational facilities; design needs; physical environment; school buildings; architecture; environmental influences; teacher attitudes; classroom equipment; government role; guidelines; research methodology; information dissemination.

The project on physical environment and special education attempted to formulate research based statements that would assist both special educators and architects in designing educational facilities for special education. The major implication of all findings was that a dearth existed in educators and facility planners who were trained and/or experienced in planning and designing special educational facilities. Data on teacher attitudes were said to include: minor modifications in teacher's working area could improve both environment and educational process; and teachers were excluded from planning school facilities in which they worked. These areas for research efforts were then suggested: evaluation of facility planning, measurement of effective use of environment, and assessment of relationship between man and physical environment. It was then suggested that funding of improved special educational facilities might come from the government, both state and federal. The bulk of the report was appendixes concerning appraisal and report on existing special education facilities in the U.S.: information useful to facility planners and a special planning process guide: methodology for field experimentation for measuring environmental role in educational process; and dissemination of information. (CB)

ABSTRACT 40533
EC 04 0533 ED N.A.
PUBL. DATE 71
DAILEY, REBECCA F.
MEDIA IN THE ROUND: LEARNING IN THE SPECIAL EXPERIENCE ROOM.
EDRS NOT AVAILABLE
TEACHING EXCEPTIONAL CHILDREN: V4 N1 P4-9 FALL 1971

Descriptors: exceptional child education: handicapped children: gifted; instructional media: educational technology: elementary school students: educational facilities: mass media: Pennsylvania

Described are educational facilities, development, objectives, and educational programs of the Special Experience Room of the Everett A. McDonald Comprehensive Elementary School in Warminster, Pennsylvania. The circular instructional media room is 40 feet in diameter with a hemispheric dome, carpeting, and no furniture. The room also has a projective space consisting of the entire wall above a couple feet from the floor, climate control, odor ducts, and sound equipment. Overall objective of the room and its educational technology is to increase a child's perception by involving him in vision and sound experiences. Learning by inquiry and discovery is applicable to the school's students who are physically handicapped, mentally retarded, learning disabled, academically gifted, and normal in abilities. Children are said to design some of their own programs. The school presently has over 200 educational programs including such subjects as developing perceptual motor coordination, cultural studies, visual imagery, and symbology. Selected teaching techniques to the Special Experience Room reveal that students are highly motivated to learn in its environment. (CB)

ABSTRACT 40894
EC 04 0894 ED 058 678
PUBL. DATE 71
WALIGURA, RANDOLPH L. AND OTHERS
ENVIRONMENTAL CRITERIA: MR PRE-SCHOOL DAY CARE FACILITIES.
TEXAS A AND M UNIVERSITY, COLLEGE STATION. SCHOOL OF ARCHITECTURE
REHABILITATION SERVICES ADMINISTRATION (DHEW), WASHINGTON, D. C.
EDRS MF,HC


Contributions of the physical environment to the learning process and environmental needs of preschool children are evaluated. Guidelines for the planning and design of preschool day care facilities, especially for mentally retarded and other children with developmental disabilities, are established. The current status and trends in day care services are summarized and the background, learn-
ing characteristics, and curriculum objectives for retarded, culturally deprived, and normal children are described. Methods and activities used to achieve these objectives, and the implications they have for the supporting physical environment, are identified. Component parts of the physical environment (color, light, acoustic, climate control, interior surfaces, space, flexibility) are discussed individually and in their relationship with each other and various psychological variables. Suggested detailed planning and design requirements for the preschool facility cover the education-training area, ancillary area, administrative area, storage, furniture, and safety. The planning and design process necessary for utilization of these guidelines is illustrated by four hypothetical case studies in which facilities are designed for different day care situations. (KW)

ABSTRACT 41013
EC 04 1013 ED 058 688 Pub. Date 71 25p. Special Education Facilities: Schools and Playgrounds for Trainable Mentally Handicapped Children. Ontario Department of Education, Toronto. School Planning and Building Research Section EDRS mf Descriptors: exceptional child education; trainable mentally handicapped; building design; classroom arrangement; playgrounds; mentally handicapped; school buildings; architectural programming; educational facilities Intended to assist school boards in planning educational facilities for trainable mentally retarded children, the booklet contains designs illustrating both the general structure and specific room arrangements for various sizes of school and various age groups. The designs show small, self-contained schools where mobility in the grouping of classes and flexibility in the arrangement of training facilities can be achieved easily. In addition to building layout and classroom arrangement, suggestions are made concerning bathrooms, playroom, kitchen, craft room, principal's office, and staff and health room. Discussion of the playground area covers both the planning of outdoor areas and specific type of recommended playground equipment. (KW)

ABSTRACT 41095
EC 04 1095 ED N.A. Pub. Date 72 6p. Evans, Joyce Steward Classroom Planning for Young Special Children. EDRS not available Teaching Exceptional Children; V4 N2 P56-61 Win 1972 Descriptors: exceptional child education; handicapped children; classroom arrangement; teacher role The teacher's role in classroom planning for effective teaching is briefly described to encompass classroom arrangement and decoration. Classroom arrangement is said to depend upon variables such as children's ages, special handicaps, and special equipment. Next, the noise level of different activities is shown to be a factor in determining room area functions. Appropriation of each room area is thought to stimulate optimal learning. (CB)

ABSTRACT 41247
EC 04 1247 ED N.A. Pub. Date Feb 72 Gorton, Chester E. The Effects of Various Classroom Environments on Performance of a Mentally Handicapped and Normal Child. EDRS not available Education and Training of the Mentally Retarded; V7 N1 P32-8 Feb 1972 Descriptors: exceptional child research; mentally handicapped; minimally brain injured; classroom environment; attention span; environmental influences; academic achievement; performance factors The study was undertaken to determine if performance of a mental task by brain injured mentally retarded children, cultural mentally handicapped children, and normal children of comparable mental age would be differentially affected by various classroom environmental conditions. It was found that both normal children and cultural mental retarded children performed the experimental task best when secluded visually. There was no particular advantage to complete seclusion. The brain injured mentally retarded children, however, performed best when completely secluded. Since there was no significant difference in overall performance between the brain injured and cultural mental retarded children, the important factor seems to be the type of environmental control. (Author)

ABSTRACT 41407
EC 04 1407 ED N.A. Pub. Date 72 203p. Viscardi, Henry, Jr. But Not on Our Block. EDRS not available Hill and Wang, Inc., 72 5th Avenue. New York. New York 10011 (S6.95). Descriptors: exceptional child education; physically handicapped; special schools; community attitudes; discriminatory attitudes (social); legal problems; educational facilities Recounted are problems surrounding the construction of a school building, with gymnasium and cafeteria, for some 200 severely physically handicapped children who were homebound because of disability, unable to attend regular schools. Focused upon are the struggles with community members and groups opposed to construction of the school in their suburban neighborhood. The community's sentiments of fear, distrust, and prejudice caused it to fight vigorously this proposed expansion of facilities already existing for the preschool through high school level handicapped students. At book's end, it is reported that the community's appeal to the New York State Supreme Court was rejected and, despite further litigation pending, construction was ready to begin on the new facility. (KW)

ABSTRACT 41857
EC 04 1857 ED N.A. Pub. Date Jun 72 Garner, Ralph E. and Others Workshops--Why, What, Whither. EDRS not available Mental Retardation: V10 N3 P25-7 Jun 1972 Descriptors: handicapped; sheltered workshops; mentally handicapped; vocational schools; rehabilitation centers The three-part article on workshops for the handicapped begins with an historical review of society's concern for the handicapped from an anthropological point of view. Classified and reviewed are three types of facilities and training workshops, and work activity centers. Areas of concern regarding existing workshops are outlined and some possible solutions suggested. (Author/KW)

ABSTRACT 42107
EC 04 2107 ED N.A. Pub. Date 72 624p. Ellington, Caruth Directory of Facilities for the Learning-Disabled and Handicapped. EDRS not available Harper and Row, Publishers, Inc., 10 East 53rd Street. New York, New York 10022 ($15.00). Descriptors: exceptional child services; learning disabilities; handicapped children; directories; facilities; clinical diagnosis; clinics; institutions; educational facilities; remedial programs; Canada The directory lists alphabetically by state and provides descriptive data on diagnostic facilities and remedial, therapeutic, and developmental programs for learning disabled and other handicapped children and adults. Information given is for the school year 1969-70. Included in the lengthy description of each diagnostic facility is such information as kinds of disabilities evaluated and diagnosed, size of annual case load, age range for client, regulations governing referral sources, length of waiting time for client after initial contact, fees charged, whether the concept of neurological dysfunction is recognized in the workshops, and the number of specialists available for consultation, core battery of testing instruments used, nature and scope of reports made to parents, size and professional qualifications of staff, and funding. Similar data are given, where applicable, for remedial, developmental, and therapeutic programs. A brief section describing diagnostic and educational facilities in Canada follows the United States listing. (KW)

ABSTRACT 42143
EC 04 2143 ED N.A. Pub. Date May 72 Taylor, Frank D. and Others A Learning Center Plan for Special Education. EDRS not available
Focus on Exceptional Children: V4 N3 P1-7 May 1972

Descriptors: exceptional child education; handicapped children; grouping (instructional purposes); learning laboratories; educational programs; classroom arrangement

Outlined is the Madison School Plan, a learning center concept which facilitates grouping of students by their learning deficits rather than by exceptionality or diagnostic category. Emphasis is placed on removal of as many exceptional children as possible from self-contained special classes and on integrating them for optimum periods of time in regular classrooms. Students are placed in one of the three sections of the learning center according to their stage of readiness for regular classroom functioning, and they are considered to be learners in various stages of preparation for return to the regular classroom. Presented are a floor plan of two typical learning center classrooms with connecting door, variations of the learning center classroom design, and a daily schedule of activities in the learning center for the three levels of readiness: pre-academic I, pre-academic II, and academic I. (KW)

**ABSTRACT 42169**
EC 04 2169 ED N.A. Publ. Date 72 Gordon, Ronnie
The Design of a Pre-School Therapeutic Playground: An Outdoor Learning Laboratory.

EDRS not available
New York University Medical Center, Institute Of Rehabilitation Medicine, New York, New York 10016.

Descriptors: handicapped children; playgrounds; equipment; design needs; architectural programming

Text and photographs describe the development of a therapeutic playground designed to facilitate play and learning of preschool handicapped children outdoors. Explained are the educational philosophy and rationale for the development of the outdoor learning and play environment, the criteria for selection of activity areas, how the space available was used, topography, construction materials used, and the design of specific activity areas and related equipment. Detailed drawings with design measurements and specifications accompany the text. (KW)

**ABSTRACT 42378**
EC 04 2378 ED N.A. Publ. Date 71 La Crosse, E. Robert, Ed.

EDRS not available


The directory of approximately 2000 representative selected early childhood education facilities in the United States includes approximately 300 academically affiliated schools, 680 day care centers, 300 kindergartens, 5 laboratory schools, 80 Montessori Method schools, 1200 nursery schools, and 150 therapeutic programs. Entries are arranged alphabetically by state and subdivided alphabetically within each state by town. The state sections generally begin with a condensation of state credentialing laws for teachers in early childhood education. Credentialing for preschool education falls into the following four categories: no teacher certification requirements at all, elementary credential required, elementary credential with a kindergarten endorsement required, or elementary credential with a nursery school or early education endorsement required. Information given is that which appears to be most pertinent to the unlicensed layman or student teacher. Also cited is the Office of Child Development's (OCD) Region number and Regional Director's name and address. OCD is explained to be responsible for the Head Start program and to coordinate much federal funding for children's programs. Description of the centers usually includes brief statements of history, educational philosophy, licensee, calendar, admission requirements, administrative and staff personnel, curriculum, fees, enrollment, finances, and facilities. (LL)

**ABSTRACT 42615**
EC 04 2615 ED N.A. Publ. Date Sep 72 McGrady, Donna S.
A Message from Open-Space.

EDRS not available
Audiovisual Instruction: V17 N7 P8-9 Sep 1972

Descriptors: open education: elementary education: instructional materials centers: educational facilities: educational needs: manpower needs: equipment

The article discusses the nature and rationale of open space schools and notes that the one common element of all open space schools is an instructional materials center. Particular attention is directed to the need for a skilled director of the instructional materials resource center and for educational technology to provide lightweight, portable and durable equipment. (GW)

**ABSTRACT 42664**
EC 04 2664 ED N.A. Publ. Date (70) 68p.
Perspectives: A Progress Report on Child Care.

North Carolina University, Chapel Hill, Frank Porter Graham Center, National Institutes of Child Health and Human Development (NIH), Bethesda, Md.

EDRS mf.hc


Described is the child care program at the Frank Porter Graham Center. Discussion of physical facilities focuses on creating a good environment, floor plan of cottage trailer, and choosing appropriate equipment. Selection of staff is said to be the most important part of establishing a day care center. The day care center is explained to serve the entire community, regardless of ability to pay, with emphasis on parent education. The child development approach is described to involve the philosophical guidelines of Jean Piaget, the operant model of B.F. Skinner, and the Montessori method. Organizational features of day care are discussed in terms of forming peer or multigroups, defining an operations staff, dividing staff responsibility, and establishing daily schedules. The general educational program is said to stimulate growth and development in self help skills, verbal ability, positive social adaptation, and realistic self confidence. Integration of structured educational experience into general day care program for infants and preschool children is examined, followed by description of the day care program. Appended are seven sample lesson plans. (CB)

**ABSTRACT 42699**
EC 04 2699 ED N.A. Publ. Date 79p.
Uttinger, Robert C.
Some European Nursery Schools and Playgrounds.

EDRS not available
Publications Distribution Service, University of Michigan, 615 East University, Ann Arbor, Michigan 48109 ($5.50).


The monograph presents descriptions of 17 day nurseries, nursery schools and playgrounds in London, England: Copenhagen, Denmark: Stockholm and Uppsala, Sweden: and Zurich, Switzerland, including selected pictures and floor plans. Institutions are discussed generally in terms of financing, scheduling, staffing, location, clientele, and physical plant (design, construction materials, size). Particular favorable features such as the use of skylights in hallways and scaled functional furniture, and kitchen facilities are noted. Playgrounds, like the Shanty Town Adventure Playground which was created by volunteers out of eight derelict backyards in a multi-racial overcrowded part of London, receive particular attention. Described are several Danish adventure playgrounds which embody the concept of "skærredugge" - playgrounds put forward by a Danish landscape architect who believed that children prefer playing in rubble and junk yards and...
developing their own constructive and imaginative play with waste objects. Features of Switzerland’s Robinson Playgrounds are listed; areas of sand, water and grass, open-air stages, space for construction activities, and indoor craft centers. The author summarizes 55 conclusions and recommendations for facilities for young children based on his observations of the European schools and playgrounds. General recommendations suggest such procedures as eliminating as many physical barriers as possible in facilities for handicapped children, and allowing children to construct much of the learning environment. Suggestions for indoor spaces counsel such activities as making floor surfaces warm and inviting, and providing private areas for times when a child wishes to be alone. Tips for outdoor areas recommend such things as making play areas suitable for year round use, and having a place where fire can be enjoyed in the play area. (GW)

**ABSTRACT 42700**
EC 04 2700  ED N.A.  Publ. Date 70  112p.
An Annotated Bibliography on Early Childhood
EDRS not available
Publications Distribution Service, University of Michigan, 615 East University, Ann Arbor, Michigan 48106 (S4.00).

Descriptors: exceptional child education; handicapped children; disadvantaged youths; early childhood; annotated bibliographies; abstracts; child development; educational programs; child care centers; facilities

The selected annotated bibliography (including abstracts) on early childhood covers many facets of the young child’s relationship to his environment. The number of entries are indicated in parentheses in each abstract. A majority of the entries was published in the sixties. The selection of over 130 publications which treat child development: (16), health programs (six), infants and toddlers (seven), educational programs (21), disadvantaged children (seven), handicapped children (four), day care (13), head start projects (13), kindergarten (five), staff programs (two), community programs (seven), standards, licenses and codes (four), physical facilities (21), outdoor play (seven), and equipment (11) was not guided by any explicit theory of early child care and development. Periodicals, bibliographies, newsletters, and organizations are also listed. (GW)

**ABSTRACT 42888**
EC 04 2888  ED 065 975  Publ. Date Nov 69  470p.
Mental Retardation and Other Developmental Disabilities, 1969.
Congress of the U. S., Washington, D. C. Senate Committee on Labor and Public Welfare
EDRS mf.c.

Hearings Before the Subcommittee on Health of The Committee on Labor and Public Welfare United States Senate Ninety-First Congress.

Descriptors: exceptional child services; mentally handicapped; national programs; federal legislation; facilities; federal government; government role; federal aid; ancillary services

Congressional hearings on mental retardation and other developmental disabilities are presented for the stated purposes of assisting the states in developing a plan for the provision of comprehensive services to persons affected by mental retardation and other developmental disabilities originating in childhood, assisting the states in the provision of such services in accordance with such plan, assisting in the construction of facilities to provide the services needed to carry out such plan, and other purposes not enumerated. Included is a copy of S. 2864, the Developmental Disabilities Services and Facilities Construction Act of 1969. Mental retardation activities of the U. S. Department of Health, Education, and Welfare are summarized. Testimony of approximately 20 individuals for or against the legislation, focusing frequently on the financing of the federal program, constitutes the majority of the document. Reports of the President’s Committee on Mental Retardation for 1968 and 1969 are then included. Construction program of mental retardation research centers, university affiliated facilities, and community facilities throughout the country is provided. Concluding are copies of selected laws relating to mental retardation. (CB)

**ABSTRACT 42993**
EC 04 2993  ED N.A.  Publ. Date Oct 72  3p.
Bongers, Kay H.; Doudlah, Anna M.
Techniques for Initiating Visuomotor Behavior in Visually Impaired Retarded Children.
EDRS not available
Education of the Visually Handicapped; V4 N3 190-2 Oct 1972

Descriptors: exceptional child research; visually handicapped; mentally handicapped; perceptual motor learning; teaching methods; multiply handicapped; visual perception; institutionalized (persons); lighting

Reported were observations, experiences, and solutions to the problem of initiating visuomotor behavior in visually impaired institutionalized, retarded children. Two major principles cited in leveling remediation strategies for problems relating to perceptual motor dysfunction in children were recapitulation of sequence of perceptual motor development and sensory input. Also noted was D.B. Harmon’s work (1949) in environmental design. Techniques utilized light images, lamps, and light table. Conclusions were that attention to children’s tasks needs to precede development of visuomotor skills, restricted visual environments directing child’s attention to task are effective in initiating purposeful performance, light is powerful reinforcer, and effectiveness of technique can be evaluated by monitoring appearance and spontaneous use of skill by child. (CB)

**ABSTRACT 50050**
EC 05 0050  ED 067 783  Publ. Date 70  164p.
Guidelines for Educational Facilities for Hearing Impaired Children.
Davis MacConnell Reardon, Division of Westinghouse Learning Corporation
EDRS mf.c.

Descriptors: exceptional child education; auditory handicapped; educational facilities; guidelines; regional programs; educational needs; building design

Facility specifications for regional planning centers for hearing impaired children are presented which are said to reflect the belief that the development of school facilities should be generated by educational objectives. The proposed regional programs would draw children from a number of counties and local school districts to a centrally located school facility. Educational considerations including characteristics and educational needs of children with hearing impairments, professional staff, evaluation, diagnosis, research, school family relations, learning activities, and organizational factors are discussed briefly. Conceptual plans and facility specifications are given with regard to architectural considerations, instructional learning areas, a children’s educational evaluation center, an administration area, a learning resources center, service areas, outdoor areas, and a mobile unit. Components of the instructional learning areas such as large group area, instructional unit area, tutorial area, counseling area, teacher planning area, learning experiences center, and special facilities are discussed and illustrated. Offices, conference areas, research areas, and a professional library are projected and schematized for the evaluation center. Other areas such as the service and outdoor areas are similarly described and illustrated. (GW)

**ABSTRACT 50055**
EC 05 0055  ED 067 787  Publ. Date 72  24p.
Pedrini, Bonnie C.; Pedrini, D. T.
Nebraska University, Omaha
EDRS mf.c.

Descriptors: exceptional child education; mentally handicapped; emotionally disturbed; educational philosophy; operant conditioning; programmed materials; behavior change; classroom arrangement

The paper presents a philosophy of education for severely disabled children and adolescents who are brain damaged (severely retarded), mentally ill, or behaviorally uncontrolled. The following are program components: psychologically and educationally sound materials such
Proposals for establishing a coordinating center for services to the MR in the Caribbean and for making recommendations to the Caribbean governments are noted. (GW)

ABSTRACT 50179
EC 05 0179 ED N.A. Publ. Date (72) 8p.
The Model Secondary School for the Deaf:
EDRS not available
Descriptive: exceptional child education; mentally handicapped; adolescents; secondary schools; residential schools; educational facilities: architecture: school role
Described are the site and architectural plans for the Model Secondary School for the Deaf which is being built under Public Law 89-694 and is to be completed in 1974 for up to 600 residential students. Included in the architectural plans are careful acoustics for the students using amplification systems, the use of a street concept allowing direct access to all socially and educationally oriented space both indoors and out, and a choice of garden-style or high-rise residence hall. The school is said to be characterized by a program designed to be exemplary for others, intensive on-going research, a demonstration program, a place for training professionals, a parent education program, an information center for data related to education of the deaf, and a center for developing and testing educational materials. (DB)

ABSTRACT 50057
EC 05 0057 ED 067 789 Publ. Date 70 68p.
Thorburn, Marigold J., Ed.
Mental Retardation in the Caribbean: Needs, Resources, Approaches.
Jamaica Association for Mentally Handicapped Children President's Committee on Mental Retardation, Washington, D. C.
EDRS m.f.hc Proceedings of the First Caribbean Mental Retardation Conference, Muncie, Jamaica, September 7, 1970
Descriptive: exception child education; mentally handicapped; environmental influences: identification: teacher education: community services: employment: adjustment problems: family role: Caribbean
Presented are conference reports including an opening address on the economic benefits of programs for the mentally retarded (MR), and eight papers discussing the problem of mental retardation in the Caribbean. Two papers on preschool age children, respectively, consider the identification and assessment of MR children in the Caribbean and present a study of West Indian children which explored the relation between preschool environment and mental retardation. Teacher training at the University of Puerto Rico and alternatives to public institutional care are discussed in two articles about school age children. Occupational impacts of the employment of MR adults are described along with sheltered facilities and occupations for the mentally handicapped. Also presented is a pilot study of the families of MR children in Trinidad and Tobago, and the adjustment of the community to the mentally retarded. Discussions that followed the presentation of each paper are included.

Residential Needs of Severely Physically Handicapped Non-Retarded Children and Young Adults in New York State.
New York University, N. Y. Medical Center
EDRS not available
Institute of Rehabilitation Medicine, 400 East 34th Street, New York, New York 10016 (Monograph #45 $2.50).
Descriptive: physically handicapped; residential care: facilities: statistical data: surveys: insitutions: state surveys: demography: financial support
Data were gathered on 2,565 severely physically handicapped non-retarded persons (age 0-55 years) in New York who were considered potentially in need of residential facilities, in order to determine the need for long term residential facilities. Statistical data are presented on the number and characteristics of persons who now or in the future have this need, younger disabled adults living in 500 proprietary nursing homes, physically handicapped persons living in a public infirmary, and monthly charges and source of payment for those living in residential facilities. Representative case studies illustrate the need for residential facilities. Data are also presented on the problems and potential resources for establishing long-term residential facilities. Described briefly are public and voluntary agencies in New York with the potential for extending their programs to include residential facilities, as well as selected residential facilities and housing programs in the United States and abroad. Summarized are eight other studies related to long term facilities. Based on data gathered, 18 recommendations are made concerning development of residential facilities and care. (KW)

ABSTRACT 50402
EC 05 0402 ED 071 223 Publ. Date 72 180p.
Stedell, Heuning
Pedagogical Background and Evaluation for an Administrative and Functional Combination of All Danish Special Education Facilities. 5th Edition.
EDRS m.f.hc
Descriptive: exceptional child education; handicapped children; educational programs: social services: educational needs: foreign countries: educational facilities: program evaluation: administrative organization; administration: Denmark
The author evaluates the educational needs of handicapped children in Denmark, discusses recent psychoeducational research pertinent to the aged problem, and makes recommendations for improving the division of administrative responsibility between the educational and social services departments. Research concerning the relative benefits of special and regular class placement is also discussed. Examined are programs offered by the Danish department of education for special education, hospital schools, remedial schools, special classes, and observation schools, and by the Danish department of social services

Physical Facilities
Exceptional Child Bibliography Series


ABSTRACT

EC 05 0517
Publ. Date 1969
ED 071 242
28p.
Rynders, John E.; Horrobin, Margaret

A mobile unit was used over a 2 1/2 month period to demonstrate that a mobile tutoring program for eight infants with Down's syndrome (12 to 18 months old) had certain educational, economic, and logistical advantages. The vehicle and camper body were said to have been chosen according to the following criteria: sufficient height to permit an adult to stand without stooping; basic housekeeping and child care accommodations; a working area large enough to accommodate one child and one adult; adequate lighting, heating and cooling apparatus. The program employed two under-graduate women selected because of their ability to relate to young children effectively; careful driving habits; excellent language skills; and willingness to help create and carefully implement lesson plans. The curriculum emphasized planned language stimulation through gamelike activities such as finger plays, music, art, tea parties, sandbox activities and water play. It was reported that seven of the eight children adapted readily to the new learning environment and that the cost of providing itinerant teaching services (three hours per child per week) compared favorably with the usual cost of providing a public school teacher for homebound children. (GW)

ABSTRACT 50517

EC 05 0517
Publ. Date 1967
ED 071 242
28p.
Rynders, John E.; Horrobin, Margaret


ABSTRACT 50710

EC 05 0710
Publ. Date 1969
ED N.A.

Changing Hospital Environments for Children. EDNR not available

Harvard University Press. 79 Garden Street, Cambridge, Massachusetts 02138 ($10.00).

Descriptors: exceptional child services; physically handicapped; hospitalized children; hospitals; design needs; building design; architectural programming

The influence of the physical environment of a hospital for children on the medical, psychological, social, and educational aspects of the total milieu surrounding the hospitalized child is examined. Design guidelines are presented for achieving an optimal physical environment. Distinctive characteristics and needs of specific age groups from infants through adolescents are considered in turn, and how these needs relate to design requirements is specified. Principles of child growth and development are linked to concepts of hospital planning and design. Also considered are how to design for family participation, for staff needs, and for an effective pediatric nursing unit. Photographs illustrating the text were taken at the new Children's Hospital at Stanford, Palo Alto, California. Appendices are design guidelines for evaluating pediatric nursing units, and observations of children in six hospitals emphasizing individual children's reactions to the hospital and some of the programmatic and architectural implications of the daily occurrences. (KW)
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