

DOCUMENT RESUME

ED 172 498

EC 114 904

TITLE Planning Instruction for the Severely Handicapped.
 INSTITUTION North Carolina State Dept. of Public Instruction,
 Raleigh. Div. for Exceptional Children.
 PUB DATE [78]
 NOTE 127p.
 EDRS PRICE MF01/PC06 Plus Postage.
 DESCRIPTORS Definitions; Elementary Secondary Education;
 Individualized Programs; Instructional Programs;
 *Interdisciplinary Approach; Program Development;
 *Severely Handicapped; *State Standards; *Student
 Placement; *Teamwork
 IDENTIFIERS *North Carolina

ABSTRACT
 This manual discusses legal and procedural guidelines established by North Carolina regarding educational services for severely handicapped students. Covered in separate sections are the following topics (sample subtopics in parentheses): definition; placement procedures (referral, screening, school-based committee, assessment, placement, and exit criteria); the instructional program (pre-planning, individual education plan, transportation, program accessibility, curriculum areas, classroom design, materials, and instructional techniques); and the educational team (teacher competencies, medical services, occupational and physical therapy services, management suggestions for severely handicapped students with cerebral palsy, psychological services, and speech/language services). Among 14 appendixes are bathroom specifications; wheelchair dimensions; a safety checklist; suggested emergency procedures; and a bibliography listing 55 references on language and communication, self-help, education, parents, physical and occupational therapy, and vocational skill training. (CL)

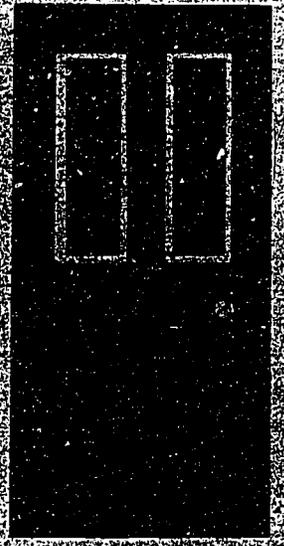
 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *



EC

ED172498

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION



PLANNING INSTRUCTION FOR THE SEVERELY HANDICAPPED

DIVISION FOR EXCEPTIONAL CHILDREN
NORTH CAROLINA DEPARTMENT OF PUBLIC INSTRUCTION

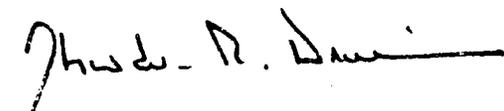
4064112

FOREWORD

All children can learn and profit from an appropriate education. This belief has united parents and professionals in the continued struggle to enact Public Law 94-142 which mandates that all children receive a free and appropriate education. North Carolina has accepted this challenge through legislation, the appropriations of state and local funds for educational services and the continued increase of educational programs being made available to all children.

For the first time public schools are opening their doors to severely handicapped children. Providing an appropriate education for these children is a rewarding but difficult task. Research is just beginning to provide the educational tools necessary to assess severely handicapped children, implement programs based upon their strengths and weaknesses, and evaluate the effectiveness of the educational program being provided.

It is the desire of the Division for Exceptional Children to join with parents and professionals to continue to provide quality programs for all exceptional children. Hopefully this manual will encourage educational agencies to develop new programs and improve the existing services now available to the severely handicapped children of North Carolina.


Theodore R. Drain, Director
Division for Exceptional Children

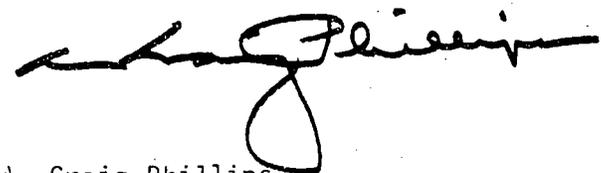

A. Craig Phillips
State Superintendent of Public Instruction.

TABLE OF CONTENTS

	Page
Foreword	i
Table of Contents	ii
Introduction	iv
Acknowledgements	vii
Definition of Severely Handicapped	1
Placement Procedures	
Referral	3
Screening	3
School-Based Committee	3
Assessment	4
Placement	5
Exit Criteria	6
The Instructional Program	
Introduction	7
Pre-Planning	7
Individual Education Plan	10
Transportation	11
Program Accessibility	14
Curriculum Areas	19
Classroom	21
Materials	22
Instructional Techniques	24
The Educational Team:	
Parents	27
Teacher Competencies	29
Medical Services	31
Occupational Therapy Services	36
Physical Therapy Services	39
Management Suggestions for Severely Handicapped Students With Cerebral Palsy	42
Psychological Services	60
Speech/Language Services	64
Other Support Services	66

Appendixes

Initial Interview Form	68
Bathroom Specifications	72
Wheelchair Dimensions	74
Safety Check List	76
Emergency Procedures	77
Sample Medication Sheet	78
Permission to Release Information	79
Obstruction of the Airway	80
Choosing Curriculum Guides	84
National Organizations and Information Services	85
Directory of Organizations	86
Bibliography	
Language and Communication	88
Self-Help	89
Education	90
Parents	91
Physical and Occupational Therapy	92
Vocational Skill Training	93
Miscellaneous	94
Individual Education Plan	95
References	102

INTRODUCTION

"The child is there. . .

Beyond the hurt and the handicap. . .

Beyond the defect and the difference. . .

Beyond the problem and the probing. . .

How can we reach him?

How can we set him free?"

One of the world's most renowned women, Helen Keller, was once considered severely handicapped. It was not until her teacher, Anne Sullivan, broke her communication code that she began to fulfill her potential for genius.

Severely handicapped children and adults have been hidden away in homes or institutions for centuries and only in rare instances have been given the specialized care they needed to help them fulfill their potential and become as normal and self-sufficient as they possibly could. Recent federal and state legislation has mandated that every child has the right to a full educational opportunity and not just to custodial care. As a result, the public schools of North Carolina have begun to establish programs in the public school setting for severely handicapped children. The advent of improved behavior modification techniques contributed greatly to the success of these educational programs. Though the programs are costly and require a highly skilled, dedicated, and diverse staff, they nevertheless represent one of the most rewarding opportunities in education. As well as providing programs on school campuses, many school systems are providing services for severely handicapped children and young adults in developmental day care centers and through home-based instruction. The 1977 State Law, House Bill 824, specifies that no new program should be established where there is an

existing program to meet the need of the child. The important factor is not so much the location of the program but rather the quality of the instruction. Programs must meet the educational standards established by the State Board of Education regardless of where they are housed. The major goals of all programs for severely handicapped are to help these students learn:

- . communication skills
- . social skills
- . motor skills
- . self-help skills including personal hygiene, dressing, eating, and toileting
- . cognitive skills utilizing pre-academic and academic instruction

The intellectual range of severely handicapped persons may vary. While some children in this category have low intelligence quotients, others can function on a fairly normal intellectual level if they can be taught to communicate. For this reason, the most imperative goal in educating severely handicapped persons is teaching them to communicate. It is necessary that ongoing assessment be part of the total educational program to learn, among other things, whether improving communication skills has altered the child's ability to learn.

There are many problems facing educators who deal with severely handicapped: the programs are costly; they often require a large transportation budget, the services of many specialists including a teacher, psychologist, physical therapist, occupational therapist, speech, language, and hearing specialists, and related services such as medical and recreational assistance. Nevertheless, the rights, needs, and feelings of this special group must be considered. The intent of the law is to insure that the "severity of the handicap" does not exclude an

individual from participating in the educational process, for it is only through this process that these persons will have any chance of becoming self-sufficient, fulfilled, and contributing members of society.

ACKNOWLEDGEMENTS

This manual would not have been possible without the cooperative efforts of many people. Special appreciation is expressed to the following persons:

Dr. Keri Jens, Professor
University of North Carolina at Chapel Hill
Chapel Hill, North Carolina

Josephine Melchoir, M.D.
Developmental Evaluation Center
Rocky Mount, North Carolina

Dianne Lindsey, Physical Therapist
Consultant, Physical Therapy
Division for Exceptional Children and
University of North Carolina at
Chapel Hill
Chapel Hill, North Carolina

Jane Rourk, Occupational Therapist
Consultant, Occupational Therapy
Division for Exceptional Children and
University of North Carolina at
Chapel Hill
Chapel Hill, North Carolina

Wayne Wampler, Psychologist
Developmental Evaluation Center
Fayetteville, North Carolina

Kathy Spence, Consultant
Severely/Profoundly Handicapped
Division for Exceptional Children
Department of Public Instruction
Raleigh, North Carolina

Ronald Allen, Teacher
Greensboro City Schools
Greensboro, North Carolina

Pat A. Fennell, Director
Sara Barker School
Durham County Schools
Durham, North Carolina

Donna Moore, Teacher
Davidson County Developmental Center
Lexington, North Carolina

Lynn Patrick, Teacher
Greensboro City Schools
Greensboro, North Carolina

Jerry Steinback, Teacher
Wake County Schools
Raleigh, North Carolina

Charles Yates, Teacher
Fayetteville City Schools
Fayetteville, North Carolina

David McGraw, Consultant
Speech/Language
Division for Exceptional Children
Department of Public Instruction
Raleigh, North Carolina

Harry E. Wyatt, Jr.
Drafting Technician
Division for School Planning
Department of Public Instruction
Raleigh, North Carolina

Janet O'Neal, Physical Therapist
Wake county Schools
Raleigh, North Carolina

Special thanks also go to Ann Isley, David Mills, Janis Carroll, Mildred Blackburn and Barbara Conner for their review and suggestions; to Kay Bullock for assistance in production and printing, and to Edna Collar for typing the manuscript.

Definition of Severely Handicapped

Definition

Educationally speaking, the term "severely handicapped" refers to those individuals age 21 and younger who are functioning at a general developmental level of half or less than the level which would be expected on the basis of chronological age and who manifest learning and/or behavior problems of such a magnitude and significance that they require extensive structure in learning situations if their education needs are to be well served. (Justen, 1976)

The two major parts of the definition are:

1. The individual's general developmental level refers to functioning in the combined areas of intellectual, social, and motor development. While the developmental level in each of these areas need not be less than half of the level expected on the basis of chronological age, the combined or overall level must be. Thus, the concept of developmental level is based on an interaction of a person's intellectual and adaptive behavior.
2. The individual must exhibit learning and/or behavior problems of such significance that extensive structure is required in learning situations. Some examples would be:
 - . Self-mutilation behaviors such as head-banging, body scratching, hair-pulling, etc., which may result in danger to oneself
 - . Ritualistic behaviors such as rocking, pacing, autistic-like behavior, etc., which do not involve danger to oneself
 - . Self-stimulation behaviors such as masturbation, stroking, patting, etc., for a total of more than one hour of a waking day
 - . Failure to attend to even the most pronounced social stimuli, including failure to respond to invitations from peers or adults, or loss of contact with reality
 - . Lack of self-care skills such as toilet training, self-feeding, self-dressing, and grooming, etc.
 - . Lack of verbal communication skills
 - . Lack of physical mobility including confinement to bed, inability to find one's way around the institution or facility, etc.
(Aft Association, 1974, p.v.)

For a student to be classified as severely handicapped both criteria must be met. The student's educational needs will require a highly structured (restrictive) environment. This environment would include the recommended pupil to staff ratio no greater than 3:1, offer a systematic program approach and provide the necessary environmental modifications.

The term educationally severely handicapped is not a permanent classification. A child may be severely handicapped at one point in life but not another. Remediation techniques can improve the child's learning and behavior skills thereby enabling that student to move into a less restrictive educational environment.

Placement Procedures

Placement procedures must be followed as they are described in "Rules Governing Programs and Services for Children with Special Needs" published by the State Department of Public Instruction, 1978. The following will outline some of those procedures as they directly apply to the severely handicapped.

Referral

A referral may be made by letter, telephone, or in person by a parent, physician, teacher, bona fide agency, or any school personnel. When the referral is received, it should be sent in writing to the Director of Exceptional Children and include the reasons for referral, address specific problems and the child's current strengths and weaknesses.

All newly identified children with special needs between the ages of five through seventeen who are diagnosed or evaluated by personnel under the Department of Human Resources shall be referred to the city or county administrative unit of their residence.

Parent participation begins at this point by informing the parents that the referral has been made. From here they should be advised of further proceedings and be encouraged to be an active participant in the placement procedure.

Screening

When a referral has been received, arrangements should be made to observe the child in his present setting. The purpose of the observation is to describe the child's ability to perform daily routine tasks. An initial interview form (see appendix) can be used to gather this information and, for this reason, the observer should be a person knowledgeable in the area of severely handicapped. The physical, emotional and educational needs of the child as well as environmental factors are to be considered.

If the child is being referred from within the local education agency, the written observation report would be completed by the teacher or a designee and sent to the School-Based Committee. If the child is presently at home, the parent will be able to give a description of the child's behavior.

A child being referred from another agency would be observed in that setting. In some cases there may exist sufficient documentation of the child's present strengths and weaknesses and therefore an observation would not be necessary. All pertinent educational information should be sent to the Administrative Placement Committee.

School-Based Committee

The School-Based Committee will receive a copy of the referral, observation report, and any other pertinent information that is available of children being referred from within the local education agency.

The School-Based Committee membership should be determined by the needs of the child who has been referred and the type of placement being considered. Members are selected from the following: principal (or designee) as chairperson; teacher referring the child; director of exceptional children (or designee); teacher familiar with the severely handicapped; psychologist; social worker; guidance counselor; speech/language and hearing specialist; physical and/or occupational therapist; school nurse; physical education teacher; recreation therapist; referring agency personnel; and parents. At least one member of the School-Based Committee should be of the same race as the child being referred.

The overall function of the School-Based Committee should be to provide a team framework for evaluating data and recommending the most appropriate placement for children referred for special education services. It is responsible for receiving referrals, obtaining parental permission for assessment, initiating screening and assessment procedures, evaluating information, and seeing that an Individualized Education Program is developed.

The committee will decide if instructional techniques, equipment (wheel-chair or communication device) or facility changes (ramps, accessible bathrooms) are needed. If further evaluations need to be completed or if the required assessments have not been completed, a written notice will be sent to the parents 30 days after the initial referral is made describing the evaluation procedures and requesting written consent to evaluate.

Assessment

The School-Based Committee is required to obtain the following assessments and evaluations to determine the educational needs of a severely handicapped child prior to placement. This is to be completed within 30 calendar days after sending written notice to the parents.

Educational Assessment - An assessment shall be made to determine the child's educational abilities in relation to his/her current educational program. Present levels of performance should be assessed in the areas of self-help, motor, language, cognitive, social and pre-vocational skills. The assessment should be comprehensive using a full range of available formal and informal tests.

Medical Evaluation - This is to be completed by a qualified physician and include such information as a diagnosis of the handicapping condition, associated characteristics, precautions, medications and recommendations for physical therapy. This information is vital to the development of the educational program for a severely handicapped child.

Psychological Evaluation - The psychological evaluation shall be performed by a qualified examiner who is either certified by the State Department of Public Instruction, licensed under the North Carolina Psychological Licensing Act or meets the qualifications of the employing state agency.

The psychological evaluation may include, but not be limited to, evaluations of intellectual functioning, social, personal and adaptive behavior. Most instruments are inappropriate as standardized for the severely handicapped and the psychologist should use his/her professional judgment about the selection of instruments for assessing these children.

Psychomotor Evaluation - The neurological and physiological dysfunctions of severely handicapped children necessitate the psychomotor evaluation be completed by a qualified physical and/or occupational therapist. The physical therapist can evaluate the child upon the written recommendation of the physician. These professionals are capable of evaluating the child's physical strengths and weaknesses and can recommend adaptive equipment and therapy to ameliorate those weaknesses.

Language and Communication Evaluation - This evaluation traditionally includes evaluations of articulation, fluency, voice and language (syntax, morphology, semantics). However, a severely handicapped child may not be able to develop expressive language skills due to physical or neurological dysfunctions. The specialist must be prepared to evaluate receptive language and develop augmentative communication systems based upon the ability and needs of each child.

Vision and Hearing Screening and Evaluation - Vision and hearing screening can be conducted by the school nurse and a speech/language specialist. Medical evaluations of these functions should be conducted by a physician. Referral to an audiologist or ophthalmologist may be necessary to obtain an accurate evaluation of a severely handicapped child's hearing and vision abilities.

Placement

The members of the Administrative Placement Committee should be selected from the following: superintendent's designee, director of programs for exceptional children, chairperson of the appropriate School-Based Committee, general supervisor, school psychologist, and other appropriate personnel. If a child is referred by another agency, an appropriate representative from that agency should provide input. The Administrative Placement Committee should have at least one member of the same race as the student being considered for special education placement.

The Administrative Placement Committee will review all the information collected and the placement recommendation made by the School-Based Committee. The Administrative Placement Committee will make all final decisions regarding placement of students in programs for exceptional children.

If placement in a program for the severely handicapped is recommended, the parents are given a copy of the appeals procedures and a copy of the Consent-to-Place form to be signed. If medication must be dispensed at school, a request for this is signed by the parent.

If placement in a program for the severely handicapped is not recommended, the parents are given a copy of the appeals procedure along with the decision not to place.

School-Based Committee After Placement

After the placement decision has been made and the parents have consented to placement, the student may be placed in a program for exceptional children. It becomes the responsibility of the School-Based Committee to develop an Individualized Education Program for each child in consultation with his parents. This plan will be revised as often as necessary, but at least annually.

The teacher(s) of the child receives the IEP and pertinent information necessary for working with the student.

Exit Criteria

When a School-Based Committee has evidence to show that a pupil no longer needs the special program or service in which he is enrolled or that another placement would be more beneficial, the committee shall contact the parents to explain the recommended program or service and the reasons for the suggested change in placement. If the parents object to the recommended placement, they may follow the appeal procedures. Following the new placement, an appropriate special educator should work with the receiving teacher(s) to assist in developing an appropriate program and service for the child.

The Instructional Program

Introduction

Severely handicapped children have difficulty learning due to deficits in intellectual, physical and emotional impairments which affect the child's ability to grow and learn. These limitations may restrict the child's ability to interact with the environment in order to gain the necessary experiences which enable the child to develop basic skills.

The instructional program must be sequential, intentional and highly structured because a severely handicapped child cannot be expected to learn simply through exposure. Each task must be task analyzed and include specific adaptations in methods and materials to accommodate for the child's mode and means of learning.

The overall program should be comprehensive and include skills appropriate for the child's chronological and mental age. Classes for young children will stress motor development, communication and self-help skills. The adolescent class will further develop and refine skills already attained and include vocational training, socialization, and activities of daily living.

The goal for all children is to maximize their potential to become contributing members of a group. That group may be the family, a group home or a residential setting. The purpose of the educational program will be to train the child to reach the highest level of independence possible.

Pre-Planning

The population of students who may be classified as severely handicapped includes children and youth with a wide variety of handicapping conditions. The severely handicapped child's motor, cognitive and social development will render him dependent upon others in his environment to assist him in communicating, moving about, and daily living skills. This degree of dependence is one major factor that qualifies students for the severely handicapped program because they need services beyond those offered in traditional special education classes.

In order to provide the appropriate education for children with diverse needs, it is necessary to plan and develop programs before students are placed. A team should plan the comprehensive program to insure that the facility, staff and programs are appropriate so that students will have a successful school experience.

The planning team should consist of the director of exceptional children, along with the principal, teachers, community agency representatives, and support personnel - such as physical or occupational therapists, psychologists, speech/language specialists, and others. The team should agree upon the philosophy of the program, identification and placement procedures, as well as the educational aspects of the daily program. Each staff person's role and responsibilities should be clearly defined, and the network of communications among professionals should be established.

The following are concerns and issues that need to be addressed before the program begins:

- . The planning team should choose the definition and criteria for placement which will meet the needs of the children in their area.
- . The number of children who have been referred should be established. The number of students, their ages, handicapping conditions and their geographic locations will play an important part in further planning. Using a district map, locate each child and specify the handicapping condition.
- . If the child is at home, a home visit to meet the parents and observe the child should be arranged.
- . A designated representative from the public schools will obtain permission from the parents to collect past records and reports. It is essential that these past records be obtained to avoid duplication of assessments and evaluations and to get a clear picture of the child's present needs.
- . The site for the program should be based upon the make-up of the group. Usually this population is scattered through a district; therefore, it is advisable to choose a facility that is centrally located. When choosing the site:
 - . The principal or supervisor should be a strong leader who accepts the responsibility of the program and will work with teachers and staff in the program's development and success.
 - . The school should be age appropriate for the students.
 - . Placement of the program in or near a junior or senior high school could provide regular students an opportunity to volunteer in the classes and thereby provide better programming for the severely handicapped students as well as increased awareness and acceptance of the handicapped.
 - . Plans will need to be made to make the facility barrier free.
- . Decide how the students are to be transported.
- . The planning committee should be aware of the assessment and evaluations that are required and select those assessment tools for testing the severely handicapped.
- . It is required that a child have a physical examination prior to placement. The physician should make referrals to a physical and occupational therapist if therapy is necessary.

When determining the appropriate class size, consider the nature of the children's handicapping conditions in relation to the instructional time needed per child, classroom space, and safety precautions. It may be necessary to lower the recommended class size because of these factors. According to Rules Governing Programs and Services for Children With Special Needs, "Effective September 1, 1979, full-time special class self-contained may serve up to 6 pupils with 1 teacher and 1 aide, and 7 to 12 pupils may be served with 1 teacher and 2 aides. Deviations may be made only with the prior approval of the State Board of Education upon request by a local education agency through the State Superintendent."

Parents should be included from the first interview, and plans to continue participation can be outlined. The lines of communication should be open at both ends to keep pace with the daily progress of the child, to be aware of medical problems, and to allow the parents' support and assistance in caring for their child.

A person from the planning team should be responsible for communicating with public and private community agencies. Because many of these children have been previously served or are receiving assistance from other agencies, it is important that the team be in touch with these agencies so that services will not be duplicated, that the family and child's needs are being met, and to determine which agencies can provide further assistance.

Public awareness can be developed through newspapers, radio, leaflets, and civic and church groups. Parents, volunteers and the teaching staff can work together to increase public awareness of the needs and abilities of the handicapped.

Because there are few teachers trained specifically to teach the severely handicapped student, staff development needs are great. A needs assessment can be done by outlining, in priority order, the in-service training the teachers will need and how those needs can be met.

Teacher aides and volunteers are integral parts of the program. It is only through effective training that they will be able to meet the demands of their job safely and correctly. The teacher, or a designee, should schedule time to train the aides and volunteers in the instructional techniques used in the class and evaluate their performance.

A curriculum that will best meet the educational needs of the class and provide a consistent daily program for each child should be chosen. No one curriculum guide will provide all the skills needed for the students in a class. The teacher will need to be able to choose activities and programs from various sources as well as be capable of writing and adapting programs to meet the specific needs of the students.

The teacher should be aware of school policy concerning medical emergencies. Because severely handicapped children are prone to choking and often have seizure disorders, the principal or supervisor of the class should make arrangements for in-service training for the classroom staff. Training in the latest first aid techniques can be provided by the local chapter of the American Red Cross or Medical Auxiliary.

Adaptive equipment such as wheelchairs, walkers and communication devices may be necessary for some children. These are expensive and they must be prescribed by the physical therapist, occupational therapist, or speech/language specialist.

The physical, occupational and speech/language specialist will need assistance to build adaptive equipment such as lap trays, tilt boards, and sitting supports. If a school carpenter, woodworking class, or volunteer group can help to build these materials, it will cut costs considerably.

Teachers should be made aware of the procedures for requesting supplies and equipment. The team members need to be aware of the proposed budget, and equipment and supply lists should be prioritized on the basis of the needs of individual students and the overall program.

The planning committee should establish the length of the school day and assist the teacher in planning individual student programs.

Individual Education Plan

The School-Based Committee is responsible for ensuring the development, evaluation, and revision of an IEP for each child prior to placement in a program for children with special needs* (page 33, Rules and Regulations). The procedure for the development of the IEP as outlined in the Rules and Regulations must be followed (pp. 33-35).

The parents, the teacher, School-Based Committee representative and the child (when appropriate) must be involved in the development of the IEP. Other individuals at the discretion of the parents or the local education agency may participate.

The IEP for each child must include:

- A statement of the child's present levels of educational performance.
- A statement of annual goals.
- A statement of short-term instructional objectives.
- A statement of specific education and related services to be provided to the child.

- . A description of the extent to which the child will participate in regular education programs and a description of the program to be provided.
- . The projected dates for initiation of services and the anticipated duration of services.
- . Objective criteria, evaluation procedures, and schedules for determining, on at least an annual basis, whether the short term instructional objectives are being achieved (G.S. 115-372(f)).

The procedures for review of the IEP include:

- . The Individual Education Program must be reviewed at least annually.
- . The student's program must be reviewed and necessary changes made in the Individual Education Program.
- . The student's parent(s) or guardian(s) must be invited to participate in the review.
- . Recommendations for any change in the student's placement must be made to the Administrative Placement Committee.
- . The student's parent(s) or guardian(s) must be notified of any change in placement and due process procedures must be followed.

A sample IEP is in the Appendix.

Transportation

The severely handicapped make up a low incidence group of children who may be scattered throughout the district. Combined with their unique characteristics and needs, the safe movement of children from home to school becomes a complex procedure. Special equipment, modifications of the vehicle, and safety precautions should be followed to protect each student.

The following are suggested steps and considerations for planning a network of transportation for the severely handicapped:

- . Pinpoint the location of each child on a map and note any need for special equipment such as a hydraulic lift.
- . Whenever possible allow students to use the regular transportation facilities available to nonhandicapped students.
- . Coordinate routes with other public and private agencies involved in the transportation of the handicapped.
- . Plan routes around the children needing special equipment and complete the route by adding other students in that area. Due to emergency evacuation time assign only 4/5 physically handicapped students per route.

- . Because riding in a bus or van can be very tiring for any person, especially for the physically handicapped, it is recommended that a child be in transit no longer than one hour each way.
- . If buses or vans are going to be ordered, the purchase of two smaller vehicles rather than one large one should be considered. This will allow more flexibility in future planning.
- . The driver should be a mature, properly licensed adult capable of assuming the responsibility of transporting the severely handicapped.
- . If the students need more supervision than the bus driver alone can provide, a monitor should be assigned to each route depending upon the physical, medical and behavioral needs of the children on that route. The monitor should be capable of assuming the driving responsibilities in case of emergencies.
- . The family should have the primary responsibility of loading, unloading and securing their child on the van/bus. (The local education agency should work with the family to facilitate this process in case of special need).
- . Every driver and monitor should receive in-service training from the teacher or therapist on handling, behavior and first aid techniques.
- . Drivers and monitors should be informed of specific physical, medical and behavioral problems of the students on his route.
- . Every child must be fastened securely with a seat belt or other prescribed safety harness.

Vehicle Modifications:

- . Aisles, ramps and steps should be stripped with anti-skid tape.
- . A storage box, under the seat behind the driver, should be provided to hold materials while in transit. If medications are being sent via the van, the box should be equipped with a lock.
- . Equip the vehicle with a two-way radio, with complete radio coverage, to call for help in case of an emergency.
- . A first aid kit and fire extinguisher should be installed.
- . Install a grasp rail for students using the van steps with an additional outer step, welded to the vehicle, giving a 7" rise.
- . The side mounted lift is preferred because the extra weight on one side is easier to compensate for than a rear mounted lift.
- . Overload springs, heavy duty shock absorbers and heavy duty battery (if air conditioning is installed).
- . Provide standard locks on all doors.

- Place a long seat at the back door to prevent children from opening it.
- Position floor mounted wheelchair locks with seat belts so that students will be facing front (seats can be arranged around the periphery).
- Hydraulic lifts are preferred because they are more durable and lift cables are not exposed.
- The lift should be flush with the floor when in the raised position.
- The lip of the lift should be 4" high and lock in place.
- Aluminum ramps can be equipped with steps so that they will accommodate the students using crutches and walkers. The steps should be wide enough for children to use, collapsible and lock into place.

Methods for loading and unloading students confined to wheelchairs:

Hydraulic Lifts:

- The van should be stopped with the lift lowered into place and stable before students are brought into the area.
- The student's wheelchair seatbelt should be securely fastened.
- Back the student onto the lift, wheels fitting into the lift grooves.
- Lock brakes while adult holds on the handle grips.
- Another adult should stand in front of the lift to be sure the chair is secure while being lifted.
- When lift comes to a complete stop, unlock brakes and pull the student onto the van/bus.
- Position the wheelchair into the flush floor mounted wheelchair tiedowns and lock the chair into place.
- Lock the wheelchair brakes and check the seat belts.

Aluminum Ramps:

- Van/bus should be stopped and ramps securely fastened into place before the child is brought into the area of the van/bus.
- The student's wheelchair seat belt should be securely fastened.
- The wheelchair should be pushed up the ramp for loading and brought down backwards for unloading.

- . Position the wheelchair into the flush floor mounted wheelchair tie-downs and lock into place.
- . Lock wheelchair brakes and check seat belts.
- . Ramps should be self-storing.

Program Accessibility

In September, 1973, Congress passed a law, Section 504 of the Rehabilitation Act, that prohibits discrimination on the basis of physical or mental handicap in every federally assisted program or activity in the country.

The regulation provides that programs must be accessible to handicapped persons. It does not require that every building or part of a building must be accessible, but the program as a whole must be accessible. Structural changes to make the program accessible must be made only if alternatives, such as reassignment of classes or home visits, are not possible. The intent is to make all benefits or services available to handicapped persons as soon as possible.

In meeting the objective of program accessibility, a recipient must take care not to isolate or concentrate handicapped persons in settings away from non-handicapped program participants.

All buildings for which site clearance has begun after June, 1980, must be designed and constructed to be accessible to handicapped persons from the start. The design standards of the American National Standards Institute (ANSI) must be used to determine minimal requirements for accessibility.

In a statement by David S. Tatel, Director, Office of Civil Rights, he stated that "The regulations emphasize the use of nonstructural changes to assure accessibility. One such method involves the relocation of classes to parts of the building which are accessible to handicapped students. Another example: A public school that needs installation of numerous ramps for program accessibility could draw on the use of woodworking shops at the district's high schools. The shops could readily incorporate a work project on design and construction of ramps for the district's buildings as part of their class-work. Similarly, vocational students could also assist in widening doors and making toilet facilities and water fountains accessible."

Specific modifications will depend upon the needs of the students enrolled in each class and the design of the particular facility. One way to realize the needed modifications is for the members of the planning committee to spend the entire day in a wheelchair; the necessary changes will become apparent. (See Appendix)

Building specifications can be found in the publications "Accessibility Modifications" (pages referenced below are from this publication) and "An Illustrated Handbook of the Handicapped Section of the North Carolina State Building Code," available through the North Carolina Department of Insurance.

Outdoor Considerations:

- . The loading and unloading zones in the parking area, should have designated parking spaces which are located as close to the building entrances as possible.
- . Route of travel from parking spaces to buildings should provide:
 - . Curb ramps at points of pedestrian flow. (p. 2 and 3)
 - . Smooth, hard, clean, slip-resistant surface with no abrupt change in level of more than $\frac{1}{2}$ inch. (p. 5)
 - . 4'-0" minimum width.
 - . No hazards such as low chains, posts or low overhanging objects such as signs.
 - . Gradual slopes, if any.
 - . Handrails at steep slopes.
 - . Places to rest where distances are great.
- . Ramps must have 5'-0" x 5'-0" level platforms at top and bottom, must be at least 4'-0" wide, must not exceed 1 in 12 slope, must have handrails on both sides that are 32" high (intermediate handrails may be needed for young children) and extend 18" beyond top and bottom of ramp. (p. 8)
- . Building modifications for accessibility should provide at least two remotely located accessible entrances for exit in case of emergencies. (p. 17)

Doors and Hallways:

- . Adult wheelchairs vary in width from a standard 2'-3" up to 2'-8". Allowing space for hands and assuming a standard 2'-3" wide chair, doors for use by persons in wheelchairs or with walkers should provide at least 2'-8" clear opening with door in the 90° open position. This will usually require at least a 2'-10" wide door allowing 2" \pm for door thickness, jambs, and throw of hinges. Cost and simplicity indicate it is desirable to use 3'-0" doors. (p. 18)
- . Doors must have a continuous, smooth, kick plate on the push side at least 10" high to allow pushing open with wheelchair bumpers. (p. 22)
- . There must be no step or bump exceeding $\frac{1}{2}$ " at doors or thresholds, and there must be a level area 5'-0" x 5'-0" at doors. 1'-0" to 1'-6" space to side of door on pull side must be clear. (p. 22)
- . Lever-type handles can be operated by a single, non-precise movement not requiring gripping or twisting, and can be operated by people with little or no use of the hands or no hands, and by people whose hands are full. (p. 24)

- . Hallways should be at least 42" wide. However, consider that a minimum width of 60" is required for two individuals in wheelchairs to pass each other.
- . Smooth, hard, slip-resistant floor materials at a common level are best. Abrupt changes in level of more than 1/2" should be eliminated or ramped. (p.26)
- . If carpeting is used, short, tight loop, glued-down carpet should be used in hallways.
- . Ramps used to provide access to interior split floor levels must have slip-resistant surfaces - carborundum grit, strips, or rough concrete are acceptable surfaces. Handrails are essential and must be 32" above ramp surface (intermediate handrail will be necessary for young children) and must extend 18" beyond top and bottom. (p. 32)
- . Ramps must have a clear, flat floor area at top and bottom. If the ramp exceeds 30 feet in length, it must have an intermediate flat rest landing at least 3'-0" long. (p. 32)
- . Handrails should be provided on both sides of stairs. They should provide 18" minimum horizontal extension beyond top and bottom stair to assist a person in stabilizing themselves before negotiating stairs as well as ascending top step and descending from bottom step. (p. 35)
- . Many existing stairs have square nosings which are hazardous for people with leg braces who may trip. Square nosings can be modified by addition of fillers securely anchored to riser face. (p. 35)
- . Water fountains can be made accessible by lowering wall-mounted fountains, adding a side-mounted fountain, and/or installing a paper cup dispenser (mounted with opening no higher than 3'-0" to 3'-4" above the floor). (p. 47)

Bathrooms:

- . The bathroom should be accessible and in close proximity to the classroom.
- . There should be enough space for a student and an adult when a student needs assistance.
- . Sinks should have hot and cold water. If the hot water exceeds 120°, the hot water and drain pipe should be insulated to avoid burning. (p. 43)
- . Lever-type faucets are preferred for all sinks. (p. 27)

- . Cabinets should be designed for storage of linens and cleaning supplies.
- . A disinfectant container should be designated for dirty or soiled diapers. The changing area must be PRIVATE.
- . Toilet training chairs can be used and screens should be provided for privacy.
- . The bathroom should contain separately enclosed commodes to accommodate a wheelchair and be equipped with handrails. At least one stall may need to be extra wide so as to allow an adult to assist a student in a wheelchair.
- . Inexpensive adjustable toilet seats are available which will accommodate children of different sizes.
- . Magnetic catches should be used on the doors of the stalls.
- . See Appendix for illustrated specifications.

Classroom Considerations:

- . Provide private areas such as a quiet corner, rocking chair or a large box to crawl through.
 - . Each classroom may be equipped with a multiple lighting system to allow for various levels of illumination. This system should be designed so that a portion(s) of the room could be darkened without affecting the remaining areas. A master control, as well as an independent control, within each lighting area should be provided.
 - . Phone jacks should be provided in each classroom for emergency calls or a centrally located phone should be designated for this purpose only.
 - . Windows with a maximum sill height of approximately 3 feet, will allow all students, including those in wheelchairs, to view the outdoors.
 - . Windows in the classroom should be built so as to allow for maximum natural light and view or to completely screen out light and outside view as needed.
- Because it has been demonstrated that color does have a decided, though subtle, effect on the tendency for producing certain behavior tones, consideration should be given to the use of color that would enhance specific activities. For example, a blue or cool tone for quiet areas; yellow or neutral colors for instructional activities; red or warm tones for physical development activities might be used within classroom/program areas.

- . The room should allow for ease of movement by students in wheelchairs and walkers, as well as ambulatory students. Keep in mind that a passage width of 32" is needed for wheelchairs. The flow of activity should ensure safety and encourage independence.
- . Walls should vary in color and texture, providing visual and tactile stimulation. This will include the use of mobiles, pictures and mirrors at all levels on the walls, ceiling and floor.
- . Small group activity areas should be as acoustically tight as possible so that auditory interference will be kept at a minimum.
- . There should be adequate ventilation.
- . Modular wall storage units at one entrance, with hooks at varying heights, may be provided for hanging garments. A shelf for storing changes of clothing, as well as lunch boxes, student work and personal items should be provided.
- . A large cabinet designed to hold wheelchairs and walkers as well as large equipment (i.e. mats and bolsters) may be installed. When a child is out of the wheelchair it could be stored in the cabinet so that it will not obstruct the path of others.
- . Build storage units to enhance maximum independence for the students so that they will be able to obtain instructional materials, such as tote trays.
- . Locked cabinet space will need to be provided for storing medications and first aid supplies, as well as instructional materials and cleaning fluids.
- . Instructional areas and other activities areas within the room should allow for maximum flexibility of grouping, utilizing movable cabinets. These cabinets will not exceed 5 feet in height and 6 feet in length. The front can be designed to accommodate tote trays, in a cubicle-like fashion. The back would allow for display of student work as well as serving as a sound buffer.
- . Avoid blind spots in which a child may be out of view of an adult.
- . A writing surface, attached to the wall, can be provided that will allow students or staff to write with water color markers and remove marks easily. This should extend from the floor to about 5 feet in height.
- . All protruding objects, especially heating units, should be removed or enclosed so as to prevent injury.

All desks, chairs and work areas should be designed to accommodate all children.

Post daily schedules, specific information for programming, and safety rules and procedures as well as emergency phone numbers.

Carpeting should be in designated areas of the room depending on the activity to be conducted there. For example, a sensory stimulation area would need a plush carpet, soft in color and texture with a non-continuous filament.

Curriculum Areas

Language and Communication

The top priority of a program for the severely handicapped is to provide each child with a means of making his/her basic needs and wants known to others in the environment. For this reason it is essential that a curriculum for severely handicapped children include opportunities for development of language and communication.

Speech is the most efficient means of communication; however, for some children speech is an impossibility. For these students augmentative communication systems should be developed based upon the ability of the student to produce a consistent reliable response. Augmentative communication systems can include communication or language boards, electronic scanning or coding devices and electronic voices.

Motor Skills

A severely handicapped child's limited mobility seriously reduces independence and chances for maximum interaction with the environment. Motor development will be the next priority area for the young child for these skills are prerequisites for other skill development areas such as self-help, pre-academics and perceptual motor skills.

Handicapping conditions may prevent independence in many skill areas. In this case, the teacher should look for ways to change the child's environment to promote independence whenever possible. For example, bars attached to classroom walls and school halls might enable an otherwise non-ambulatory student an opportunity to ambulate. Many devices can be made with minimal expenses, and an occupational and/or physical therapist can recommend them. The classroom can be altered to facilitate easier and more independent movement for the severely handicapped child.

Sensory Stimulation

Normal infant experiences stimulate the development of sensory skills. If a child is handicapped, first hand experience with the environment is often limited. The curriculum for severely handicapped will include sensory stimulation to enhance body awareness through tactile stimulation and include opportunities for stimulation of the senses of smell, sight, hearing and taste. Motorical imitations and sequencing of movements will also be stressed. Some students may seem unresponsive to sensory stimulation, but often with repeated daily activities the senses can be trained to become alert to environmental experiences.

Activities of Daily Living

Activities of daily living include the basic self-help skills as well as home economics and personal hygiene. These skills should be taught so that the child will learn to function as independently as possible in the least restrictive environment. Severely handicapped children, even if they are severely physically involved, are capable of developing skills when modifications and adaptations are made. These modifications can be made with the recommendations of physicians, physical, occupational therapists and speech/language therapists.

Social Skills

The acquisition of social skills is important for all students but especially for the older ones. Therefore, this will be a high priority curriculum area for adolescent students. Social skills will enable these students to function effectively and appropriately in the natural environment. Social skills include the manner in which the child is able to cope with tasks and demands in the environment and the ability to take responsibility of personal and social behaviors. The child must learn to interact with peers and adults, accomplish tasks, make judgments as well as exhibit appropriate social and emotional behavior.

Pre-academics/Academic Skills

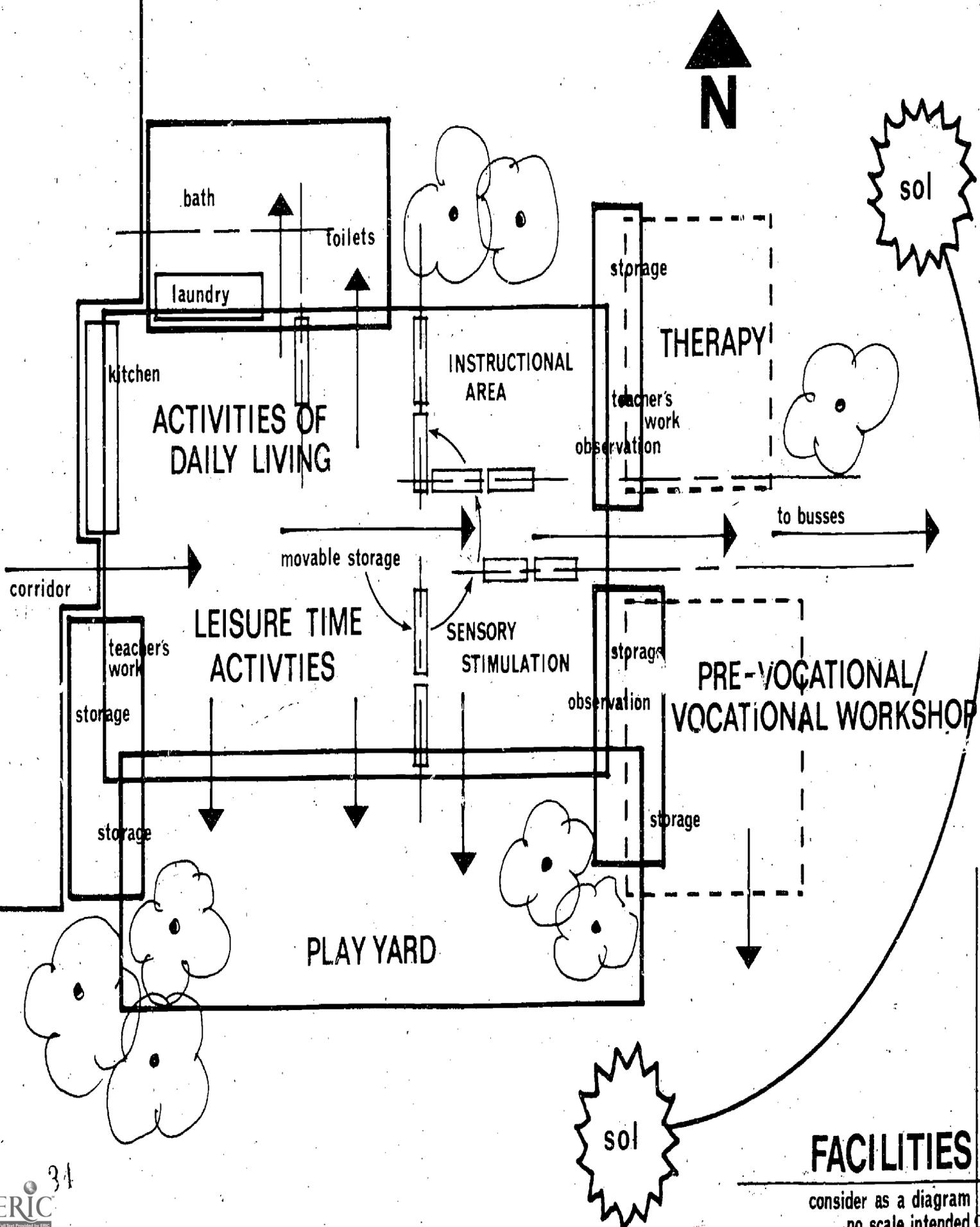
Pre-academic skills are those skills which are prerequisites to academic skills which would include such tasks as form matching, size discrimination, directionality and more or less concepts. Academic skills, such as reading, writing and arithmetic, are those skills which allow the student to further his interaction with the environment.

Vocational Training

For the adolescent students emphasis must be placed on the development of skills which will enable them to seek employment, placement in a workshop or assist in tasks that will make each student a contributing member of a group. Vocational skills will include learning to operate simple shop equipment and tools as well as being able to complete basic home economic skills.

Leisure Time Activities

Everyone needs rewarding and enjoyable leisure time activities... Students must be helped to plan, select and enjoy participation activities, spectator activities and appreciation activities during free time (Bigge and O'Donnell, 1976). Children should be encouraged to explore activities of interest and to choose materials and supplies independently. For this reason, toys, manipulative activities, as well as art supplies, should be accessible to the students for their use at the appropriate times. Activities such as caring for plants and animals, music, playing bingo or card games should be incorporated into the curriculum.



FACILITIES

FACILITIES

consider as a diagram
no scale intended

MATERIALS

Activities of Daily Living

baby bottle
tipsy cups
glasses
cups
silverware
special dishes and utensils
straws
combs and brush
washcloth and towel
toothbrushes and toothpaste
teaching frame set: buttons,
zippers, snaps
soap
detergent

Instructional Supplies

Curriculum Guides in all
developmental areas
form boards
size forms
attribute blocks
boxes for teaching position
pictures for language programs
magnetic letters and numbers
magnetic board
2 sets of letters, numbers, and bills
name cards - students, and adults
and objects
busy box
multishape box
rings on a peg straight and graduated
blocks
graduated cylinders
beads and bead patterns
pegs and pegboards (small, medium, large)
puzzles with or without knobs - 1-10 pieces
lego building blocks

Sensory Stimulation

spices
soft hairbrush
plastic squeeze bottles
bubbles
sensory toys
textured materials
vibrators
visual stimulation materials
mobiles
mirrors, etc.
auditory stimulation and music
rhythm instruments
records
tapes
books

Leisure Time Activities

playdough
paints
felt tips
chalk
easels
paste
glue
pencils - jumbo and regular
paper - newsprint, tagboard,
construction, etc.
clay
silly putty
toys (cars, dolls, etc.)
nerf balls
tennis balls
cards
bean bags
bingo
play clothes

Vocational

screw driver
tweezers
hammer
nuts
bolts
screws
envelopes and paper
labels
packaging materials
sorting materials
sorting and assembly trays
circuit boards
signs of emergency
goggles or safety glasses

Equipment

tables (adjustable to fit wheelchairs)
chairs with arms for lateral support
mats, wedges and rolls for motor
programs and therapy
cots
pillows
dividers to cut out distractors
mirror for language and self-help skills
developmental exercise ball
stop watches
bean bag chair
file cabinet
storage shelves
movable partitions
record player
cassette recorder
*prone board
*walkers and wheelchair
*augmentative communication devices
typewriter with guard communication
balance disc
rocking boat
trays for wheelchairs
stove - for teaching
refrigerator - activities of
washer - daily living
dryer -
blender for preparing -

*prescriptive items

Instructional Techniques

The Systematic Program Approach:

Programs for the severely handicapped will use the systematic instructional approach. This approach is composed of the following steps:

- What to teach - The teacher must determine:
 - skills, behaviors and competencies each child needs to acquire
 - the child's present level of functioning. It will be necessary to task analyze each skill to know precisely where the child is.
 - the priority of skills needed and write the short term objectives necessary to accomplish the annual goals. The short term objectives should be written in behavioral terms (observable and measurable skills) and indicate who will teach each skill.
- How to teach - The teacher will determine:
 - prerequisite skills necessary to accomplish the objectives
 - methods, materials, and adaptations necessary for the student to accomplish the short term objectives
 - consequences for correct, incorrect or no response to instructional cues
- How to measure - The teacher will select:
 - a system to collect and compile data on a daily basis
 - objective and subjective evaluation criteria

General Instructional Considerations

- Decide how children will be grouped, scheduled, and organize activities by their use of time, space, equipment and personnel.
- The daily schedule should be flexible throughout the year and planning should include input from aides and volunteers.
- Include opportunities for the rotation of staff responsibilities to provide for staff growth and better services to the children.
- Be prepared. Before bringing a child or a small group into an activity have lesson plans, materials and data sheet ready.
- Prior to giving directions (verbal and/or nonverbal), make certain that the child is attending.

- . Be sure the child has the receptive language skills to be able to understand the directions being given.
- . Go from simple to complex. Skills should be sequenced to enable the child to expand upon previously learned concepts.
- . Projects and activities should incorporate concepts that have been or that are being taught. If an art project is planned, use colors the child knows; materials that increase fine and gross motor abilities and choose projects that the child is able to complete as independently as possible.
- . Activities should be motivating and stimulating to the point that the child's interest is maintained.
- . Be positive but realistic. Severely handicapped children learn at a slower rate and therefore be aware that a small gain can be a major step toward the accomplishment of a task.
- . Make the activities enjoyable for child and teacher. Encourage attempted responses, creativity, investigation and display student work.
- . Although the daily program must be highly structured in order to provide the consistent program needed by severely handicapped students, there should be flexibility in instructional and environmental modifications and adaptations, and scheduling.
- . Try to teach skills in their most naturally occurring environment. For example, if a teacher is going to teach a child to eat finger foods, the teacher should program that skill by giving the child finger foods at snack and meal time. If a skill occurs so infrequently in the natural environment that it must be taught in an unnatural environment the task analysis should indicate how the skill will be reinstated into its natural environment. It is only when a child has learned to complete a task across persons, places, instructional materials and language cues that it can be considered accomplished.
- . Handicapped students need more time to complete a simple movement or to respond to verbal commands. The first concern is to teach the child to respond appropriately and then to respond within a reasonable length of time.
- . If the child responds incorrectly or does not respond, the programmer should use physical assistance or other modifying techniques that will enable the child to respond correctly.
- . Plan closely with other professionals. The total responsibility of a program cannot be assumed by a professional who is available only once or twice a week. The teacher should coordinate the activities and training being conducted by other professionals. For example, if a speech/language specialist is teaching the child to communicate, a factor in choosing the vocabulary will be its usefulness in the child's total environment. It will then be necessary for the teacher, peers and the family to give the child opportunities to use that system.

- It is never too early to plan for the future. Skills to be taught should be prioritized on the basis of their usefulness in other environments, the time required to accomplish a skill, the degree to which independence is increased and opportunities for future employment.
- Teach skills that will enable the student to function as independently as possible in the home, community or residential setting. These skills will prepare the student for participation in a sheltered workshop and/or community employment.

The Educational Team

Parents

The education of the severely handicapped child is a continual process which makes the parents, as well as the teacher, integral parts of the educational team. Involving parents requires open communication and coordination because of the nature and severity of the handicaps exhibited by these students.

The information and insights that parents can provide are invaluable in planning and programming for all children. When successes are measured in small steps, there is even greater reason to share information. One small step gained over a weekend can provide key information to a trainer and reinforcement to both the teacher and parent.

The teacher and other professionals should work in cooperation with the parents in order to successfully teach the child. The parents need to feel that they are important members of the educational team and will be actively involved in the decision making processes of planning for their child's education.

Parents of handicapped children pass through stages in the process of accepting their child's handicapping condition. These stages may include: awareness that the child's development is different, recognition of the disability, searching for a cause and a cure and, finally, acceptance of the condition. The family is often under great stress and will need the support and assistance of the professional team. Bringing up a child is difficult but problems can be solved through the joint efforts of the family and concerned professionals.

During the initial interview the parents and teacher can begin to lay the foundations of a working relationship between the home and the school. The parents can give the background information needed to begin the placement procedures.

The screening and assessment procedure should yield information needed to attain educational goals. These children are often very difficult to evaluate, and the parents can often assist by accompanying the professional when needed, giving information and suggestions of ways of positioning and handling the child, and helping the professional choose an appropriate test by describing reliable and consistent ways the child is able to respond to questions and materials.

Parents often are intimidated by professionals. The parent is a required member of the school-based committee which will consist of a large group of professionals, and this meeting may be uncomfortable for the parents. The teacher has established a relationship with the parents, and therefore may act as a liaison between them and professionals by asking questions and clarifying statements to make sure the parents fully understand the proceedings. The parents should always be encouraged to voice their own ideas, needs, and concerns for their child.

Professionals should keep the language of their report understandable to fellow professionals and parents and include both the child's strengths and weaknesses. The school-based committee can give suggestions and recommendations on how to build upon the strengths to ameliorate the weaknesses when planning the educational program.

The choice of educational goals should be a joint decision. Goals should reflect the needs of the child (in the school and the home) and the capabilities of the family and community resources available to meet these needs. There are strategic events (mealtime, bathtime, bedtime) that are excellent teaching times. Because of the need for consistent teaching, parents and teachers must communicate and agree on the optimal teaching strategies. This cooperative effort will allow the child to be more successful.

The families of the severely handicapped have invested much time and energy into the child they present to the educator. It is imperative, therefore, to continue these efforts cooperatively and not lose the most valuable resource -- the family.

The following are ways to involve parents:

Parent-Teacher Conferences:

- . To gain and share information concerning the child
- . To plan educational goals for the child
- . To discuss progress periodically (at least three times each year)

Parent Group Meetings:

- . To discuss general ideas of needed information -- questions concerning behavior, family roles, legislation, child rights and community resources
- . To have various professionals speak on such topics as medical problems, positioning and handling, feeding, etc. (physician, physical therapist, occupational therapist)
- . To provide parents with the expertise needed to reinforce skills being taught at school and transfer learning to the home

Teacher Competencies

Teachers of the severely handicapped face the tremendous challenge of teaching children who enter an educational program with a wide variety of mental, physical and emotional characteristics. The individual needs of the students in the class will determine the necessary teacher competencies. The teacher must have an instructional repertoire and applicable skills to ensure that children will develop to their full potential. Therefore, a classroom teacher should demonstrate knowledge and expertise in the following areas:

Referral, evaluation and assessment including:

- . Child find procedures
- . Due process procedures
- . Criterion-referenced and norm-referenced measurement
- . Data collection and data summary

Team planning including:

- . Transdisciplinary approach to service delivery
- . Team staffing procedures
- . Preparation of individualized educational programs (IEP)
- . Basic knowledge underlying participating disciplines

Instructional planning and implementation including:

- . Behavior management principles and technology
- . Direct instructional formats
- . Task analysis
- . Curriculum development
- . Evaluation and environmental alternative
- . Normal developmental sequences
- . Programming in the curriculum areas

Medical and physical management including:

- . Educational implications of various medical conditions
- . Physical positioning, handling, and transfer

- . Maintenance and management of prosthetics
- . First aid
- . Seizure management
- . Monitoring the effects of medication

Consultation, training and indirect service including:

- . Working with parents and siblings
- . Functioning as a program manager
- . Designing and implementing in-service activities to train aides and volunteers

Professional responsibilities

- . Advocate for individual students and program
- . Awareness of resources--local, state and national
- . Knowledge of state and federal rules and regulations
- . Awareness of liability
- . Professional growth and development

Medical Services

Children enrolled in programs for the severely handicapped are often handicapped both physically and mentally. The physician becomes an integral part of the team in developing programs for these children. The physician can supply the teacher with the specific medical information upon which to build the educational program.

The need to obtain this information prior to a child entering an educational program cannot be emphasized strongly enough. A teacher is not capable of making decisions concerning medications, diet and physical strengths and weaknesses. Because of the complexity of some students' physical conditions, this information becomes vital to the health of the child and reduces the risk of life threatening situations.

It is necessary for the teacher to consult with the physician through the parent. In this way a consistent home-school program can be developed based upon medical recommendations.

Role of the Physician:

- . Provides routine health care for the child
- . Communicates with and advises parents concerning any situation affecting the child's health
 - Explains handicapping conditions
 - Provides support
- . Acts as a clearinghouse for receiving and disseminating information
- . Fills out school medical forms
- . Makes referrals to other medical professionals
- . Prescribes and monitors medications as needed
- . Provides information and assistance in health crisis situations including neglect and abuse

Physician's Report:

When sending a form (such as the one on the next page) to the physician, enclose a cover letter stating that this information is needed prior to the placement of the child in the educational program.

PHYSICIAN'S REPORT

Child's Name _____ Date of Birth _____

Parent/Guardian _____

Address _____ Phone _____

Diagnosis, significant characteristics and degree of involvement:

Limitations or precautions:

Dietary recommendations/restrictions:

Allergies (including drugs):

Regular medications (dosage, when given, effects which may be observed at school):

Other comments:

Immunization Statement:

I certify the above named has received all immunizations required by North Carolina State Law for a person of this age.

Physician's Signature

Name Printed

Address

City

Tel. No.

Medications

If a child is receiving medications, the teacher should be aware of the medication and the reasons prescribed. The teacher, by consulting with the family and physician, should know what behaviors are being controlled and report any change in those behaviors to the parents. The teacher can report possible adverse effects by communicating in writing to the parent the observed behavior changes. The teacher should keep a copy of the letter.

When a child is on medication for seizure control, the teacher should make a record of any seizure that occurs, the date, the duration of the seizure and the characteristics.

If a teacher or aide gives a child medication the following guidelines should be observed:

- . Permission to dispense medications signed by the parents/guardian allowing the said teacher and/or aide to give medications. This form should be on file at the school.
- . Medications are kept at school in properly labeled containers (preferably not glass). The label should have the child's name, doctor's name, name of medicine, dosage and when it is to be given.
- . Medicines are to be kept in a locked cabinet.
- . A daily record is kept of the medications given to whom and by whom to insure that dosages are not repeated or forgotten.
- . If possible, one person should be responsible for dispensing medication.

Awareness through Education

It is very important that the medical profession become more aware of educational programs available for severely handicapped children and youth. As an advocate for children and the overall program, it would be extremely helpful for the school system to develop a working relationship with the medical profession. The following are suggestions on how to develop this relationship:

- . Involve the school nurse in your program to help with medical and health problems.
- . Invite local physicians to visit the classroom.
- . Contact the local medical society and ask to give a brief presentation on programs for the severely handicapped.
- . Put a short article in the medical bulletin describing what services schools are providing for the severely handicapped.
- . Invite local health department nurses to visit the program. They can help coordinate community services.

Emergency Situations

Every school should have policies posted concerning first aid and emergency procedures. Regular and special teachers should be fully aware of these policies. Because teachers of severely handicapped children are more likely to encounter possible life-threatening situations due to the physical involvements of their students, it is suggested that they be skilled in first aid treatment. It is recommended that special training in these areas be provided all staff and volunteers in programs. The local chapter of the American Red Cross or Medical Auxiliary are available for consultation and training.

First Aid for Seizures (Epilepsy, 1977)

Seizures are not painful and the child has no memory of them. It is understandable that the observer may feel frightened, helpless and generally out of control of the situation. The following are steps to be taken if a child has a Grand Mal Seizure:

- Keep calm. Loosen the child's collar, and put something soft under the head. You cannot stop the seizure. Let the seizure run its course.
- Do not try to restrain the child.
- Remove hard, sharp or hot objects from the area.
- DO NOT FORCE ANYTHING BETWEEN THE CHILD'S TEETH.
- After the seizure, turn the child to one side to allow saliva to drain from the mouth. Do not offer anything to drink until the child is fully awake. Let the child rest if he wishes. Use a calm soft voice when talking to the child.
- If the seizures last beyond five minutes, or if the child seems to pass from one seizure to another without regaining consciousness, seek medical attention. This rarely happens but it is a medical emergency and should be treated immediately.
- The parents should sign a statement which will give the school permission to seek medical assistance in case of an emergency if they cannot be reached.
- Reassure persons in the area that the situation is under control.
- The teacher should document each time a child has a Grand Mal Seizure and keep the parents informed about the frequency or change in type of seizure activity.

Obstruction of the Airway

Choking is a critical emergency and must be immediately treated because brain damage or death may occur in four to six minutes. As in all emergency situations, do not panic. Refer to the Appendix for the American National Red Cross "First Aid for Foreign Body Obstruction of the Airway." Be prepared in advance.

Occupational Therapy Services

The occupational therapist as part of a transdisciplinary team can make a unique contribution to the severely handicapped student whose ability to function effectively in the school environment has been impaired by the developmental process, disease, injury, difficulties in sensory processing, or psychosocial disability. The knowledge of the disease process, normal and abnormal development, biomechanical principles, and the therapeutic use of activity are utilized by the occupational therapist to help educators develop the student's maximum functioning level in skills of gross and fine motor, perceptual motor, psychosocial, sensory integration and self help.

Definition

Occupational therapy is a health care profession, whose primary concern is to develop the skills and abilities needed for an independent and productive relationship with the environment. Various adaptations of life tasks, behavior, and the environment are utilized to accomplish this goal.

Occupational therapy provides services to those individuals of all ages whose lives have been disrupted by prenatal, birth, postnatal defects or the aging process. Also included are students who have developmental deficits, difficulty processing sensory information, psychosocial dysfunction and those who are handicapped due to physical injury or accident.

In the educational setting the goal is to assist educators in developing a program for handicapped/delayed students which provides opportunities for maximum growth and development. After a comprehensive evaluation, appropriate purposeful activities are selected which are matched to the individual needs of the student. These activities will serve to improve performance capacities in life tasks including self-help and education, and to maintain or prevent a decrease in physical and psychosocial functional skills.

The Role of the Occupational Therapist

Evaluation and Assessment

Evaluation techniques and procedures include interviews, behavioral assessments, review of history, sensory/perceptual testing, clinical observations, clinical and standardized testing. Areas of evaluation may include:

- . Kindergarten screening for early detection of developmental delay
- . Oral-motor dysfunction and feeding problems
- . Gross/fine motor abilities
- . Developmental reflex testing
- . Ocular-motor skills (reaching, handwriting)
- . Sensory processing (somatosensory, vestibular, visual, auditory)

- . Sensory integration dysfunction usually identified in the learning disabled population
- . Perceptual motor skills and deficits
- . Self-help skills - dressing, feeding, toileting
- . Play and leisure time abilities
- . Social-emotional competencies
- . Prevocational skills
- . Physical (architectural) facilities and environment
- . Needs for adaptive equipment

Intervention

Based on evaluation findings recommendations are suggested to develop interpersonal, physical and adaptive skills that restore, improve, or prevent decline of functional capacities in life tasks.

Direct Services

Utilizing purposeful activity and other treatment procedures involving sensory processing, positioning, and handling activities to:

- . Maintain or improve motor functioning as: range of motion, muscle strength, gross and fine motor coordination, and activity tolerance
- . Improve level of functioning in the areas of visual, auditory, somatosensory (tactile, proprioceptive, and vestibular) perception
- . Help child achieve a maximum level of independence in toileting, feeding, dressing, grooming, and mobility
- . Help child develop homemaking and vocational skills and appropriate work habits through prevocational activities.
- . Promote normal psychosocial development
- . Develop appropriate visual motor skills to enhance eye-hand coordination

Indirect Services

- . Participate in educational planning and placement committee
- . Coordinate students' therapeutic program (classroom program and home program) with school personnel, family, physicians and agencies.

- . Instruct teachers, parents, and other personnel in areas relating to the child's therapeutic program including:
 - positioning, handling and carrying techniques
 - activities of daily living
 - use and care of adaptive equipment
- . Design and construct adaptive equipment and devices for the student and/or the classroom
- . Serve as a medical liaison with medical clinics and community agencies

Consultation

As a consultant the occupational therapist will provide information about the special needs and physical disabilities of handicapped children to families, teachers and appropriate school personnel. The occupational therapist will:

- . Interpret recommendations and/or specific management programs
- . Provide inservice education concerning:
 - medical aspects of handicapping conditions
 - elimination of architectural barriers
 - safe transportation
 - use of adaptive and special equipment

Physical Therapy Services

The limited classroom performance of the severely handicapped student is often compounded by the presence of additional and varying physical handicaps. An expanding variety of educational and medical personnel is needed to help meet the educational and functional needs of these children. The ever growing number of handicapped children in our educational settings require that physical therapists now be included as full-time staff members in our schools and classrooms for special children. The physical therapist, with skill and knowledge acquired through specialization and extended education, can assist the educator in the assessment, management, treatment and follow-up of services by children with physical handicaps. Together, the educators and the therapists can provide a learning environment which will enable the severely handicapped child to develop to his/her maximum potential.

Definition

Physical Therapy may be defined as a health profession concerned with the prevention of physical disability and the rehabilitation of individuals with handicapping conditions resulting from prenatal causes, birth, illness or injury. The purpose of physical therapy is to develop or restore neuromuscular and/or sensorimotor function, control postural deviations to minimize disabilities and to develop and maintain maximal performance levels within the individual's capacity.

The Role of the Physical Therapist

Assessment

- Screening - a process of surveying a large number of children in order to identify those having problems previously undetected.
- Evaluation - methods and procedures including formal and informal tests, observations and reviews of records. These procedures are undertaken to determine causative factors, nature, extent and prognosis of a handicapping condition. Evaluation may include:
 - . Developmental level
 - . Sensory and motor development
 - . Postural reflex maturation
 - . Joint range of motion
 - . Muscle tone, strength and function
 - . Balance and equilibrium reactions
 - . Postural and gait deviations
 - . Sensory and perceptual motor development

- . Functional oral skills
- . Activities of daily living - dressing, feeding, toileting, transfers, etc.
- . Adaptive equipment needs
- . Architectural barrier and transportation needs

Intervention - assisting students to overcome educational deficits which result from physical handicaps by using direct physical therapy techniques or by assisting and instructing teachers, other school personnel and family to utilize physical therapy management skills.

- Direct Service - Treatment Program - A treatment program using appropriate physical therapy skills and techniques is administered by the physical therapist.
- Indirect Service - Management Program - A management program is developed, taught and supervised by a physical therapist but is carried out by other qualified personnel (i.e., teacher, aide, parent). It may include:
 - . Positioning, handling and carrying techniques
 - . Management of daily living skills (dressing, feeding, transfers, wheelchair mobility)
 - . Postural control and/or mobility
 - . Management and use of adaptive equipment

Consultation - The establishment of communication and the sharing of information with professional personnel and parents in relationship to the unique educational programs for exceptional child.

- General Consultative Services
 - . Long-range planning for the handicapped child within the school setting
 - . Suggestions for elimination of architectural barriers
 - . Suggestions for safe, appropriate transportation and fire procedure
 - . Suggestions for special equipment needs

- Specific consultative services

. Teaching and Training

- formal and informal inservice education
- teach special skills necessary for positioning, handling, carrying, feeding, etc.
- teaching the use of adaptive and assistive devices

. Interpretation

- explaining and defining physical abilities and disabilities
- explaining and defining medical terminology and medical procedures

Physical and Occupational Therapy

Management Suggestions for Severely Handicapped Students With Cerebral Palsy

Caution

Individual students differ in the severity and distribution of involvement of their physical handicaps. An individualized physical management program must be developed for each special child to meet his unique physical and educational needs. What "works" for one child is rarely appropriate for another child no matter how similar their disabilities may appear.

A physical therapist is a necessary team member to help educational personnel develop a management program for each severely handicapped child. The therapist must also re-evaluate and modify that individual program on a regular basis.

Goals

- Provide opportunity for optimal learning
- Increase ease in classroom and home management
- Contribute to therapeutic program
- Prevent deformities
- Allow normal movement and posture
- Allow maximum independent function
- Modify abnormal movement and posture

General Principles for Handling and Positioning

- Everyone working with an individual should be familiar with methods for handling and positioning to meet that child's specific needs.
- To be most effective, techniques must be consistent and repetitive. Methods of handling should be incorporated into daily activities.
- Parents, teachers, and therapists must work as a team toward the same goals.
- If the child has abnormalities of muscle tone, activities that may change or affect muscle tone (relaxation or stimulation) should be done before positioning or working on movement. The physical therapist can prescribe such activities for individual students.
- Never force a part of the body to move into the desired position.
- Allow the child to do as much for himself as he can without sacrificing good posture and movement. The purpose of good handling is to take away any supports that are not needed.
- Alter the speed of your movements to fit the child's needs. Fast, abrupt movements tend to increase muscle tone. Slow, rhythmical movement decreases muscle tone. Even the sound of a voice (loud, soft, etc.) can make a difference in the child's response.
- Do not bounce children with spasticity on their toes, since this tends to increase muscle tone.
- Changing abnormal patterns of movement and poor positions is often more difficult with the older child than with the infant and young child. Consult your therapist for guidance. Once appropriate goals are established, be patient.
- Individual problems may limit the ability to obtain the most ideal positions for some children (deformities, breathing problems, habitual postures perpetuated over years, child's inexperience and subsequent fear and discomfort). Some of these problems may be overcome, but will require more gradual program development and more guidance from therapists.
- Always observe rules of good body mechanics when lifting and moving children. Don't strain your back unnecessarily. (See Body Mechanics for Lifting and Carrying).

- Avoid attempting a task that is too difficult for the student's level of development and disability.
- Supply toys and activities appropriate to the child's position at any given time.
- Incorporate as many types of educational stimulation as can be done appropriately with any given activity (e.g., directions as you move, colors, parts of body, etc.).

General Principles for Lifting and Carrying

- Be aware of the student's physical capabilities and needs before lifting him.
- Provide support as needed for safety and comfort.
- Do not support the child more than is necessary. It is important that the child be given the opportunity to experience and practice movement and good posture on his own.
- Avoid placing a hand directly behind the head of a child with spasticity as this stimulation may encourage him to push his head back abnormally.
- Encourage symmetry as you lift and move the student (e.g., head in midline, trunk straight).
- One method of lifting a student who is lying on the floor is to first roll him to his side. Place arms around the child's shoulders and rotate his body and gently bend the student forward toward a sitting position. From this position, place other arm under the thighs to support the legs and bend the child at the hips and slowly lift.
- A possible method of lifting a student from a chair begins with the teacher standing behind or slightly to one side of the seated child. Place your arms around the sides of his body with your hands placed at his thighs. Bend the child forward and lift. Keep the student bent at the hips and knees and rest him on your hip as you hold or carry him.
- Carry the student in a position that allows him the opportunity to see what is going on around him.
- Carry the student in a position that supports the hips and legs. Leaving the legs unsupported often results in increased muscle stiffness and difficulty with movement.
- Bending and spreading the legs of the spastic child will often make carrying easier.

- ENCOURAGE INDEPENDENT MOBILITY. Allow the student to move independently (with or without special equipment). Independent mobility may take more time in and around the classroom, but contributes to educational goals of environmental awareness and exploration as well as increased self-esteem.
- Techniques for transferring the child from chair to floor or from one chair to another will vary with individual students. Consult the therapist about the most appropriate methods to meet the student's needs. The following suggestions are appropriate for any transfer situation.
 - . Communicate with the student; let him know what you plan to do and why. Enlist his assistance when appropriate.
 - . Provide reassurance and security especially if the child is fearful.
 - . Lock the wheelchair brakes before beginning the transfer!
 - . If using other types of chairs, make sure they are stable and will not move as you transfer the student.

Body Mechanics for the Person Lifting and Carrying the Child

- Never bend from your waist only; bend your hips and knees.
- Avoid lifting a heavy child higher than your waist. Ask for help.
- Hold the child close to your body.
- Avoid carrying unbalanced loads.
- When transferring an object from one position to another, position your feet in the direction you are going to avoid unnecessary twisting.
- Make sure you have a good grip before you try to lift the child.
- When two or more people are working together to move a child:
 - . Make sure all persons are moving in the same direction.
 - Don't move until all persons are ready. Counting "1, 2, 3, lift" helps organize your movements.
 - Distribute the weight equally if possible.
 - . Clear the pathway you are moving in to avoid tripping over obstacles.
 - . Never obstruct your vision with the child you are carrying.
 - . Avoid sudden movements.

General Principles for Dressing/Undressing

- Assemble clothes and other materials within easy reach before beginning in order to avoid confusing the child with frequent interruptions.
- Attempt to obtain the student's interest in dressing and/or undressing. Incorporate other educational goals during this time (e.g., body parts, colors, textures).
- Communicate with the student. Explain, at his level, what you are doing and why.
- The position the adult uses for dressing and undressing the child may affect the child's attitude as well as ease of movement. If the child cannot see or sense what is happening, he may be passive and uninterested. Some positions may increase stiffness or involuntary movement in his head, trunk, or extremities making dressing more difficult.
 - Lying across your knees on his tummy, sidelying, or sitting are preferred positions for dressing the student.
 - Many spastic children have a tendency to stiffen their arms and legs and throw their head back if lying on their backs. It is best to avoid this position for dressing and undressing. If there are no position alternatives other than backlying, reduce the increase in muscle tone by (a) placing the child's head on a firm pillow, (b) raising the child's shoulders and upper body slightly, (c) bending the knees and hips, and (d) spreading the knees apart.
 - From a sidelying position, pants can be put on or removed by rolling the child from one side to another. This technique lessens the amount of time spent in a backlying position and may decrease difficulty in spreading the legs apart.
 - When a sitting position is desired for dressing and the student lacks the ability to sit and balance independently, he may sit in front of you with his back to you so you can provide support if needed.
 - Working in front of a mirror allows the student to observe the dressing process and can provide helpful sensory feedback. However, if the student is attempting some independent dressing skills, the reversed image in the mirror may be confusing and should be avoided.
- Dress the most affected side first.

- When putting on or removing socks, shoes, or braces, it is helpful to bend the hips and knees.
- Avoid touching the ball of the foot as pressure at this area may cause the leg to stiffen with the foot pointing down, toes curled under. Instead keep touch and control at the heel and ankle.
- Remember to push the arms slowly through sleeves rather than pulling them. If the elbow is bent, attempting to straighten it forcefully may only cause more bending as the stiffness increases.
- Often problems such as the student pulling his shoulders back, bending his elbows, throwing his head back excessively or sliding forward out of his seat can be alleviated by slowly bending the student at the hips and leaning him forward.
- Check clothing after dressing to insure comfort (e.g., elastic too tight, excessive wrinkles, zippers caught, etc.) since the child may be unable to express discomfort or may be less sensitive to a potential problem.
- Special, individualized techniques may be necessary for removing pants for toileting if the student is ready to begin toilet scheduling or training. Adaptive equipment in the bathroom may be necessary to increase balance and stability.
- Remember to share helpful ideas with parents to encourage continuance of the program at home. Seek out parental advice.

General Principles of Feeding

Remember: Each local education agency should develop a plan that will ensure the safety of severely handicapped children during feeding. There are specific therapeutic techniques designed to assist classroom staff in feeding the child with oral-motor dysfunction. A physical or occupational therapist or a speech and language specialist should be consulted to prescribe appropriate feeding procedures and these should be reviewed with the parents before implementation.

The Student

- . During feeding, be aware of the whole child. His physical disabilities, level of understanding, behavior, emotional needs, and his previous experience or habits all contribute to his mealtime abilities.
- . Carefully select the location where a child will be fed. He should not be isolated from his peers and, whenever possible, he should be fed with the other children (in the classroom or in the school cafeteria). However, if the child is easily distracted by other children and noise, a quiet, but not isolated, location may be the best practical choice.

- . Place the child in a comfortable and relaxed position. Try various positions (using basic handling principles) until an appropriate position is found that controls abnormal movement.
- . Adults should not feed a school age child in their lap. Utilize a chair (or other equipment if recommended) and, with the therapist, work out adaptations or special accessories to accommodate each child's special needs.
- . Cover the child's clothing with a protective cloth to make after-meal clean-up easier.
- . Always approach the child from the front when feeding unless otherwise instructed by the therapist.
- . Always approach the child with the food held at a level that does not require him to throw back his head, allows him to see the food and to remove it from the spoon.
- . The child's head should be in a neutral upright position for chewing and swallowing. The chin should not rest on his chest (or the table) nor should it be thrown back as he chews or swallows.
- . Establish an individual rhythm and speed for feeding each child. Students vary significantly in the time required to be fed.
- . Once the mealtime has begun, give the child full attention.
- . If possible, allow the child to choose the foods he prefers. Whenever nutritionally appropriate, allow him to express his likes and dislikes.
- . Do not vary feeding techniques from one meal to the next. Establish one method. When the child makes progress, gradually utilize new methods.
- . A hungry student will appreciate a few bites of food before beginning a feeding session during which plan to improve his eating patterns. Begin to satisfy his appetite and he will be more cooperative.
- . Spend as much time as possible with each child at mealtime, but be aware that some children may prolong mealtime to obtain more individual time and attention.
- . Provide quiet, warm praise and encouragement at the child's accomplishments and efforts at normal swallowing, lip closure, chewing, etc. Remember that levels of excitement and the tone of a voice will affect the child's response.

- . The student's first steps toward self-feeding will be finger feeding. Finger feeding should be encouraged at the developmentally appropriate time. Be prepared for messiness; it is part of the learning experience.

- . Allow the student who feeds himself more time to eat. Consider his mealtime as one of his educational experiences.

- . Allow the self-feeding student to rest his elbows on the table. The additional support may be needed to increase stability.

- The Food

- . Find out from the child's parents what types of food and which feeding methods they use at home. Start here and begin to make changes and improvements if necessary. Always keep your parents informed!

- . The meal should always be nutritious.

- . Hot foods should be kept hot and cold foods cold. Develop a method to maintain food temperature. Consider a warm tray or insulated dishes.

- . Choose a food with a consistency that a child can manage.

- . Avoid mixing foods together. Mixed foods deprive the child the pleasure and sensory cues provided by different colors, textures and smells.

- . Avoid lots of sweet foods or candy. They increase drooling as well as leading to dental problems.

- Personnel Feeding the Student

- . Prepare for the meal by gathering together everything needed before beginning.

- . Prepare the child by talking to him about the meals and what he's going to eat.

- . Be thoroughly familiar with the student's feeding capacities.

- . Talk to the child during the feeding to encourage a normal mealtime atmosphere. Praise and encourage him in a warm, pleasant voice.

- . The adult's attitude about feeding the child will be one of the most important factors in the success of the meal. Take care that any displeasure or frustration is not revealed in your facial expressions, voice level, or gestures.

- Equipment for Feeding

- . Protective covering for adult and the student to protect clothing.
- . Towels and/or washcloths if necessary.
- . Equipment for maintaining food temperature.
- . Containers for food.
- . Appropriately sized spoons. Spoons that are too deep make food removal with the lips difficult.
- . Never use plastic spoon. Metal spoons or vinyl-coated spoons are appropriate.
- . Cups with a spout and lid to prevent spillage if necessary.
- . Plastic glasses or cups cut out on one side to allow you to see how much liquid the child gets and observe how he drinks.
- . Scoop plates (one side of plate curved gradually higher and has lip at the upper edge to make scooping easier) for self-feeders.
- . Rubber mats to secure plate without spillage.

. Positioning in the Classroom

- Frequent change in the student's position during the school day is essential to prevent pressure sores, fatigue, and deformities and to encourage the student's full participation in educational activities. Do not allow the student to remain in any one position for more than one hour.
- Avoid the backlying position for playing, dressing, nap time or any other school activity unless there are no alternatives.
- Never allow the student's feet to dangle unsupported in a sitting position. The feet should be flat on the floor or footrest of the chair so that the ankles are bent at a 90° angle. If the chair is too tall for the child or lacks a footrest of correct height, obtain a more appropriately sized chair. You may temporarily modify the chair by positioning a firm box under the child's feet at the correct height.
- When seated, the student's hips should be well back in the seat to prevent sitting in a slumped posture.

- Use seat belts in wheelchairs, classroom chairs, and transportation vehicles.
- Do not leave a child unsupervised in the bathroom.
- Do not confine the student to a wheelchair if other classroom chairs or positioning aids could provide appropriate support. Attempt to provide a normal classroom atmosphere.
- Stand or sit at the student's level. Be aware that a person's position in relation to the student will affect his posture. Don't stand over him as this will encourage him to extend his body excessively to see you.
- Recognize the value of ALTERNATE POSITIONS OTHER THAN SITTING. The student's physical problems often require the use of many non-sitting positions. Other positions may also enable the student to participate in activities with more ease and skill.
- The sitting position may also be varied and improved by using special equipment to provide a change from the traditional chair sitting posture.

Examples: These positions may not be appropriate for every child. The positions chosen should be coordinated with his functional and educational goals.

Figures 1 & 2

- Encourages head control and weight bearing on arms.
- Good position for visual and auditory stimulation.
- Wedge and holster should be sized appropriately for the child.
- Student's arms should be placed in front of the edge of the bolster or wedge.
- Legs should be apart. A firm sandbag between the knees may be helpful.
- Caution: If the child needs both his arms for support, he will not be able to use his hands for reaching or pointing in this position.

Lying Positions

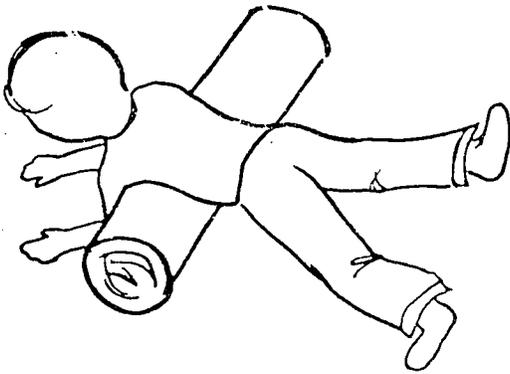


Figure 1 Student in stomach (prone) lying position on foam or roll

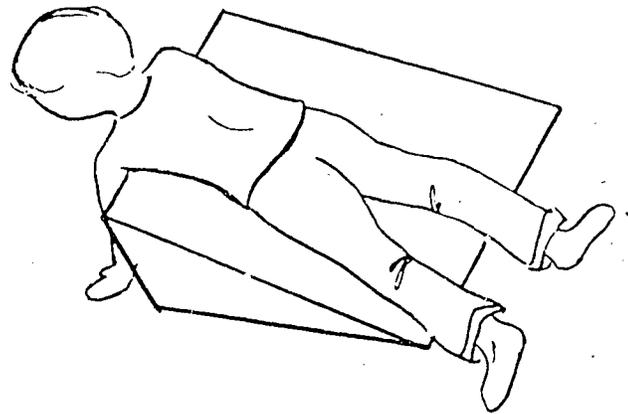


Figure 2 Student in stomach (prone) lying position on wedge

Figure 3

- . Allows student to observe even if he is unable to lift his head.
- . Encourages use of both hands in the midline.
- . Locate toys or educational materials in an area that directs the student's vision downward as he looks and thus avoids hyperextension of the head.
- . Place head on small pillow.
- . Be sure the student is bent at the hips and knees and that head is forward.
- . Separate the legs with a firm pillow between the knees.
- . Secure the child's position with sandbags if maintaining the position is a problem.
- . The side the student is lying on should be alternated if possible.

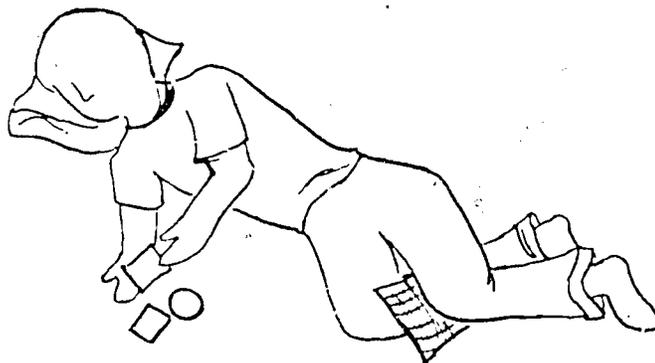


Figure 3 Student in side-lying position

Figure 4

The backlying position should be avoided if possible. However, many older students have such severe deformities of the chest, spine, and legs that backlying may be the only possible position. If backlying must be used:

- . Place a pillow behind the head and upper part of the body.
- . Additional support under the knees using small pillows or foam rubber may limit stiffness in the legs.
- . Sandbags at either side of the chest and hips may help maintain a symmetrical posture.

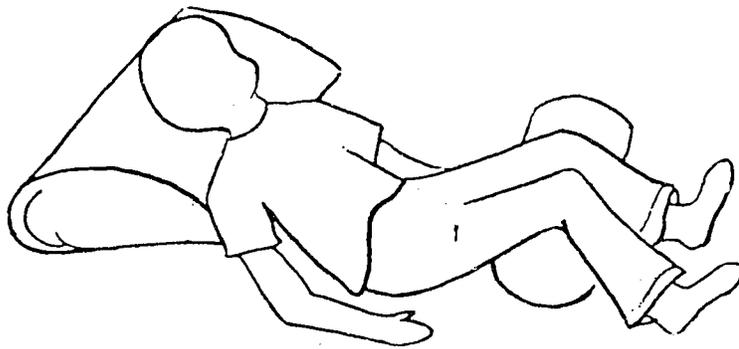


Figure 4 Student in back-lying position.

Sitting Position Variations

Figure 5

- . Corner chair positions the shoulders so the student can reach forward easily.
- . Wedge between knees separates legs.
- . Feet are positioned flat on floor.
- . Allows school activities in upright posture.
- . Seat belt assists in keeping hips back in chair and contributes to safety.

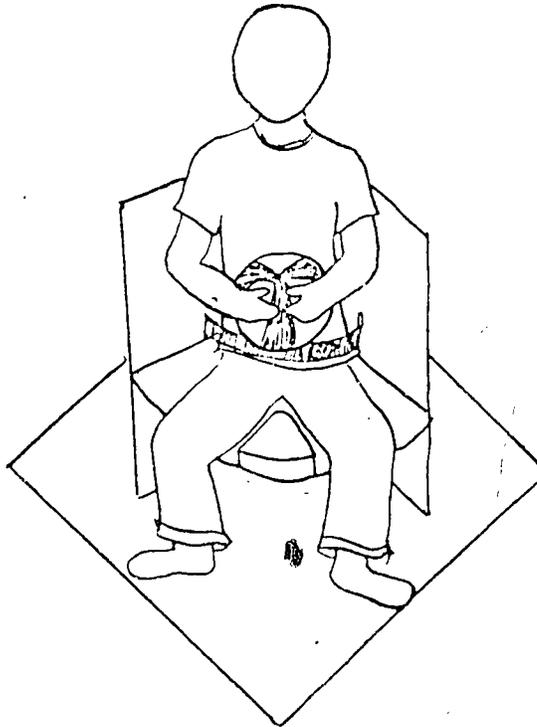


Figure 5 Student seated in corner chair with legs separated

Figure 6

- Using a bolster as a seat provides variation from chair sitting.
- A bolster seat can be used if the student has good balance. If balance is lacking, the teacher must sit behind him on the bolster or offer support while seated beside him.
- The student's feet should rest flat on the floor.
- The diameter of the roll should allow the legs to be spread apart without discomfort.

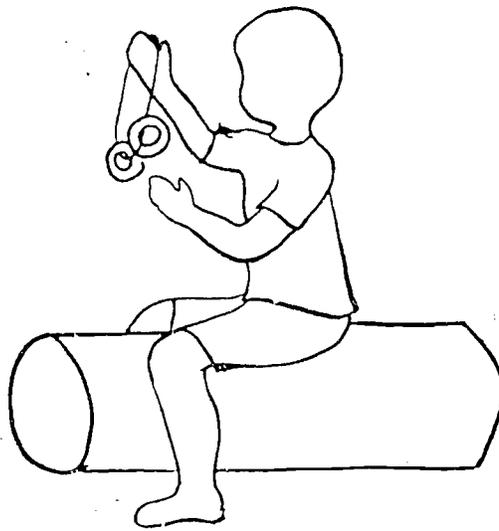


Figure 6 Use of bolster as a seat

Figure 7

- . Cut-out table allows the student to get closer to the table surface especially if he is seated in a wheelchair.
- . Provides elbow support for more stability.
- . Height of table should meet individual needs.

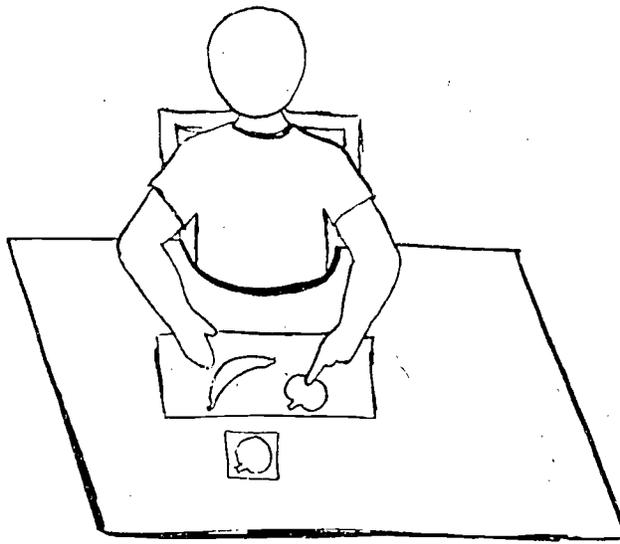


Figure 7 Student seated at cut-out table

Weight Bearing Positions

Figure 8

- Kneeling is a good position for weight bearing on the legs, if developmental milestones and physical status allow.
- The student should bear weight equally on both knees.
- The knees should be slightly apart.
- The table should provide support as well as work area.
- Table height should vary according to individual student needs.

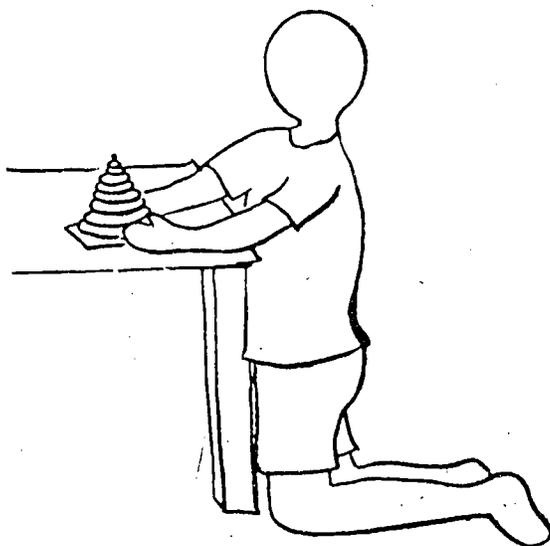


Figure 8 Student kneeling at table

Figure 9

- . Standing prone board allows supported standing.
- . A prone board should ALWAYS be recommended by a physician and its use supervised by a therapist.
- . Provides valuable weight bearing on legs.
- . Requires gradual introduction to student to prevent insecurity and fear. Safety belts are always used.
- . Readily adaptable for classroom activities.
- . For older students, more socially acceptable than lying on floor.

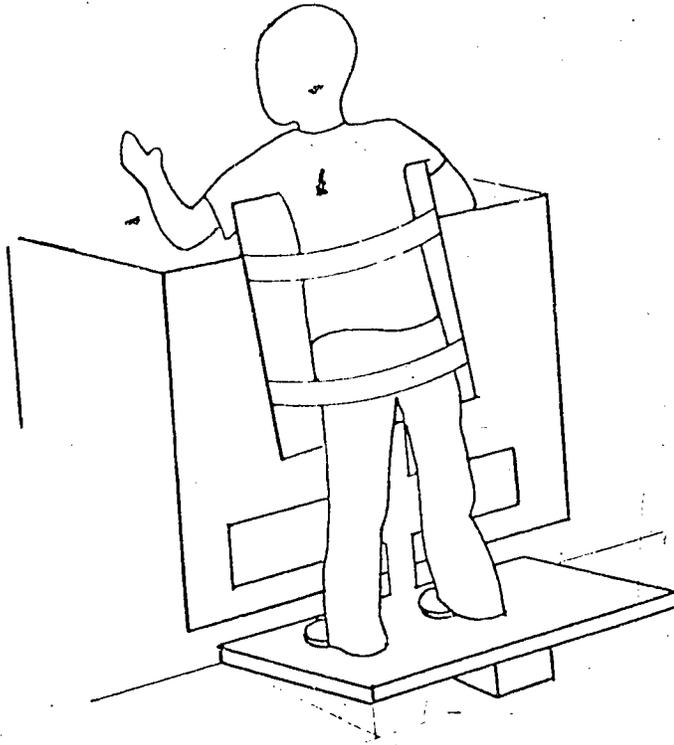


Figure 9 Student standing at prone board.

Psychological Services

In providing educational services to severely handicapped children, it is essential that the services of a school psychologist be available. In addition to providing the traditional evaluation services, the psychologist can augment and supplement the efforts of the instructional team in the school in planning and implementing an appropriate educational program for the child. She/he may also counsel with parents to assist them in better understanding their child's strengths and needs, serve as a liaison with community agencies serving the severely handicapped, and assist the teacher in developing appropriate intervention strategies for use in the classroom.

Outlined below are five topic areas which sample the general duties and responsibilities of a school psychologist in relation to programs for the severely handicapped:

Psychologist as an Assessment and Evaluation Specialist

Using a variety of formal and informal assessment techniques, the school psychologist can provide significant data which would allow for documentation of the child's educational strengths and needs. This documentation of skills will provide some objective criteria which can be used in making a decision about the child's eligibility for a program for children with special needs, and in developing an individualized education program for the child.

Such an assessment might also be useful to parents in providing documentation of eligibility for the North Carolina State Income Tax exemption for a severely handicapped dependent, or in determining eligibility for other programs, such as Supplemental Security Income. It may also be useful to parents in allowing them to make a more direct comparison of their child's abilities to others in a competitive "real world" society.

Information which might be valuable in accurately assessing a severely handicapped child is often quite situation specific, and conversation with someone familiar with the child, such as a teacher or parent, would be appropriate. Information which is often useful would include such things as the most functional communication channel, potential reinforcers, and specific weaknesses or strengths in cognitive and adaptive processes. This information can be useful in determining not only the actual type of evaluation to be used, but also the setting and physical arrangement of the evaluation process. For instance, children with a limited range of motion can only respond to tasks when those tasks are presented in a manner that allows the children to use what limited range of motion they may have. Failure to observe this might result in an assumption that the cognitive process necessary for the task is not present when it merely represents a physical inability of the children to complete the task.

The assessment of a severely handicapped child's cognitive ability and adaptive behavior should be completed using a variety of formal and informal assessment techniques (i.e., test instruments, observation, background information, and interviews with the teacher, parent and child). Few psychometric instruments have been standardized for the severely handicapped population,

however, and care must be exercised in their use with the severely handicapped child. In addition to the use of multiple measures to determine ability, the psychologist should exercise his clinical judgment in determining the child's level of educational functioning. From the psychologist, this will demand flexibility, cautious, but able, clinical judgment, and an ability to integrate data from many sources, including data from a multi-disciplinary team.

Psychologist as a Consultant

The school psychologist can be a valuable resource to the teaching staff in the schools who are working with severely handicapped children. In addition to providing information concerning the child's educational strengths and needs, the psychologist can provide assistance and consultation in general behavioral and developmental areas, can be a resource in the use of specific instructional strategies and techniques (i.e., positive reinforcement, shaping, fading, and task analysis) and can work with the teacher(s) in monitoring the child's educational progress.

The school psychologist can be expected to provide some direct intervention in the classroom setting which focuses on more difficult cases. For example, the psychologist can assist the teacher in setting up programs to increase appropriate behavior in the classroom, modify instructional materials and techniques to meet the individual needs of the child, and assist in the development of a curriculum which suits the learning styles of the students.

The school psychologist can serve as a resource in areas such as normalization, program direction, and relationship of the child's educational program to the entire educational system. In a sense, the psychologist could serve as a link with the "real world" enabling classroom personnel to maintain their perspective regarding the children in the program, their expectations of the children, and the ongoing environment in which these children will live. Such information is extremely useful in planning for educational programs and involving other significant persons, particularly parents, in the child's educational program.

Psychologist as a Liaison with Community Agencies and Services

The school psychologist may serve as a liaison with other community agencies providing services to severely handicapped children. The liaison may be in more traditional roles (i.e., case studies involving assessment information) or in non-traditional areas such as serving on boards of agencies providing accessory services, participating in class advocacy actions, and developing public education programs. The school psychologist may also assist in educating others to the rights of the severely handicapped child to receive a free and appropriate education.

Psychologist as a Program Development and Evaluation Consultant

The school psychologist can assist administrators and other school personnel in the design, preparation and evaluation of programs and services for the severely handicapped child.

A SAMPLE OF EVALUATION INSTRUMENTS USEFUL FOR
SEVERELY/PROFOUNDLY HANDICAPPED CHILDREN

NOTE: Following is a suggested list of evaluation instruments without specification of their proper use. As indicated earlier, many of these instruments were neither developed specifically for use with severely handicapped children nor were these students necessarily included in the normative sample. Some of these instruments may be used to determine specific levels of skill development for children and to make some clinical judgments about their abilities. However, attempting to derive scores on the basis of the test norms might be quite inappropriate. These instruments should be administered only by personnel (individuals) who have been trained in their use and interpretation.

- I. Developmental
 - A. Bayley Scales of Infant Development
 1. Mental Scale
 2. Motor Scale
 3. Infant Behavior Record
 - B. Uzgiris-Hunt Ordinal Scales of Infant Development
 - C. Denver Developmental Screening Test
 - D. Gesell Developmental Schedules
- II. Cognitive (including traditional I.Q.)
 - A. Cattell Infant Intelligence Scale
 - B. Stanford-Binet, Form L-M
 - *C. Wechsler Preschool and Primary Scale of Intelligence*
 - *D. Wechsler Intelligence Scale for Children-Revised*
 - *E. McCarthy Scales of Children's Abilities*
 - F. Peabody Picture Vocabulary Test
- III. Tests for Children Exhibiting Specialized Handicaps
 - A. Hayes-Binet Test for the Blind
 - B. Leiter International Performance Scale
 - C. Hiskey-Nebraska Test of Learning Aptitude
 - D. Columbia Mental Maturity Scale

IV. Educational or Educational Readiness Tests

- A. VMI - Developmental Test of Visual Motor Integration
- B. PIAT - Peabody Individual Achievement Test
- C. PDLA - Psychoeducational Inventory of Basic Learning Abilities
- D. FROSTIG - Developmental Test of Visual Perception by Marianne Frostig
- E. Bender-Gestalt Visual Motor

V. Adaptive Behavior Rating Scales

- A. American Association on Mental Deficiency Adaptive Behavior Scales
- B. Vineland Social Maturity Scale

*Will be of limited usefulness.

Speech/Language Services

Many severely handicapped children cannot talk and as a result of not being able to talk these children are often not talked to. Because of the lack of communication, the severely handicapped youngster cannot join in the educational mainstream of the public schools or in the social mainstream of the community. All too often, the non-communicating severely handicapped child passively withdraws and remains dependent upon family and community. It is imperative that the severely handicapped child be a communicator as quickly as possible. The role of the speech/language specialist is to determine what kind of communicator the child can be. In addition to the traditional role, the speech/language specialist must ascertain whether the child will be able to use his oral motor/motor speech system to communicate or will the child need a non-oral alternative (i.e., augmentative communication system).

Speech/Language Specialist as an Evaluator:

The major responsibility of the speech/language specialist providing services to the severely handicapped is to evaluate the child's oral motor/motor speech, laryngeal and respiratory functioning and the synchrony or lack of same of the child's breathing.

Much information is available to the speech/language specialist on assessment and evaluation of the oral motor/motor speech, laryngeal and respiratory systems. However, there are no "clinical tools" (tests) with which to determine the eventual ability of the child to use speech, but rather an objective/subjective method of evaluating the behaviors of the child. Essentially, it is the skill and experience of the speech/language specialist which is the "clinical tool." As always, caution must be used to prevent a hasty decision being made on the basis of a hurried evaluation.

A thorough evaluation will enable the speech/language specialist to place a child in one of three categories:

- . little or no potential for speech
- . some potential for speech is evident, but the child is not using speech to communicate
- . the child is able to use speech to communicate

A thorough evaluation will include the administration of formal and informal tests along with the observation of the child as well as obtaining a language sample. Because the communicative abilities of many severely handicapped children are as fleeting as an eyeblink or a nod of the head, attention must be paid to what the parent, teachers and any other person who interacts with the child on a daily basis report about the child's communication; for example:

- . Does the child laugh appropriately?
- . Does the parent say "I know everything the child is trying to say?"
- . Is the child expected to communicate?

If a child is able to use speech to communicate, a "regular" speech/language evaluation is then necessary to determine the student's language proficiency and the accuracy of the student's syntactical, morphological and phonological systems, both expressive and receptive.

If, however, the child falls in one of the other categories, it then becomes the role of the speech/language specialist to aid the evaluation team in the design and development of an augmentative communication system.

Speech/Language Specialist as a Program Developer

The role of the speech/language specialist will be designing an augmentative communication system. As a member of the educational team, the speech/language specialist will consider:

- . the type and degree of physical handicap
- . the best response mode available for the child
- . the degree of cognitive ability
- . the social, home and school environment
- . other communicative abilities of the student
- . communication functions to be filled by the augmentative communication system

The augmentative communication system chosen must be flexible enough to be used by the child at school, at home, if possible at play. The language intervention program developed must follow the sequence of normal language development and should be as pragmatic as possible (i.e., within a context rather than isolated). Once a child is using an augmentative communication device, programming can proceed in the "regular" manner.

Speech/Language Specialist as Consultant

As a consultant, the speech/language specialist should advise and concur with parents and staff on the language and communication needs of the students. The specialist should train the parents and staff in techniques that facilitate language growth and stimulate communication. If an augmentative communication system is chosen, the specialist should explain and demonstrate the use of the system to enable the child to communicate in all environments.

It rests incumbent upon the speech/language specialist, as an active member of the educational team, to convince the team that some children may not be able to talk, but they can communicate.

Other Support Services

Principal Supervisor

- . May be a member of the school-based committee
- . Is responsible for overall leadership of the programs
- . Is aware of daily program techniques and lends technical assistance
- . Positively reinforces what is happening in the classroom
- . Assists the staff in ordering supplies, materials and equipment
- . Helps coordinate and support special staff and volunteers
- . Intervenes when there are problems involving policies and procedures
- . Deals tactfully with parents to make clear the school's strategies in working with their child and communicates the limitations of reality
- . Supports the program and includes staff and students in all school functions
- . Plans and develops staff development activities

Guidance Counselor

- . May be a member of the school-based committee
- . Consults with teachers
- . May be responsible in parent education program
- . Assists teachers in developing awareness and acceptance of handicapped persons

School Social Worker/Liaison Teacher

- . May be a member of the school-based committee
- . Compiles case histories, health reports and evaluations
- . Serves as a liaison among pupil, family and community agencies and the school
- . Is able to make referrals
- . Assists in the transfer of students involved in vocational rehabilitation programs

School Nurse

- . May be a member of the school-based committee.
- . Serves as a consultant on matters related to health and nutrition
- . May be responsible for vision and hearing screening

Supportive Services for the Regional Staff

The most consistent and ongoing support can often be provided by a co-worker in one's local education agency or community, for example, the Coordinator for Exceptional Children's Programs, a fellow teacher, the counselor, principal, school psychologist, mental health person, etc. Assistance from persons outside the LEA is available as follows:

Regional Resources

Regional services are an integral part of the service delivery function of the Division for Exceptional Children. Services are based on the current thrust of the Department of Public Instruction to decentralize State services and bring them closer to the people being served. The purpose of regional services for exceptional children is to provide technical assistance to (1) improve the delivery of services provided by the Division for Exceptional Children; (2) provide a coordinated framework which allows local agencies to cooperate in joint ventures; and (3) provide professional support and services at the local level.

Statewide Resources

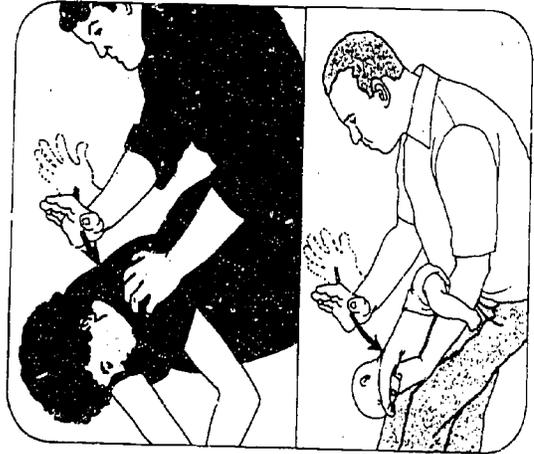
The Division for Exceptional Children also provides the services of statewide consultants who have special training and experience in working with the severely/profoundly handicapped. They are available, upon request, to provide assistance to local education agencies. For further information contact:

Division for Exceptional Children
North Carolina Department of Public Instruction
Education Building
Raleigh, North Carolina 27611

Complete Airway Obstruction

Conscious Victim - known complete airway obstruction

1. Determine complete obstruction (victim was eating)
 - . Victim gives distress signal which is the gesture of clutching the neck between thumbs and the index finger
 - . Rescuer asks, "Can you speak?"
 - . Rescuer says, "Cannot speak, and is not coughing."
2. Give four back blows in rapid succession. (See illustration)
 - . If the victim is lying, roll the victim on his or her side, facing rescuer with chest against knee.
 - . If victim is sitting or standing, the rescuer should be behind and at side of the victim.
 - . If the victim is an infant, he or she should be facedown on the rescuer's forearm, head down.
 - . Make sharp blows with the heel of the hand on the spine between the shoulder blades.
 - . Rescuer says, "Object still obstructs airway."



C. Give eight manual thrusts. (See illustration)

1. If the victim is standing or sitting, the rescuer should --

- . Stand behind the victim and wrap his or her arms around the victim's waist. (C1)
- . Place thumb side of the fist against the victim's abdomen, slightly above the navel and below the rib cage.
- . Grasp the fist with the other hand and press into the victim's abdomen with a quick upward thrust.

2. If the victim is in a lying position, the rescuer should -- (C2)

- . Place victim on his or her back and kneel close to the victim's side.
- . Place one hand on top of the other with the heel of the bottom hand in the middle of the abdomen, slightly above the navel and below the rib cage.
- . Rock forward so the shoulders are directly over the victim's abdomen and press toward the victim's diaphragm with a quick upward thrust.
- . Do not press to either side.

3. If the alternate straddle position is used (i.e., small rescuer and large victim), the rescuer should--(C3)

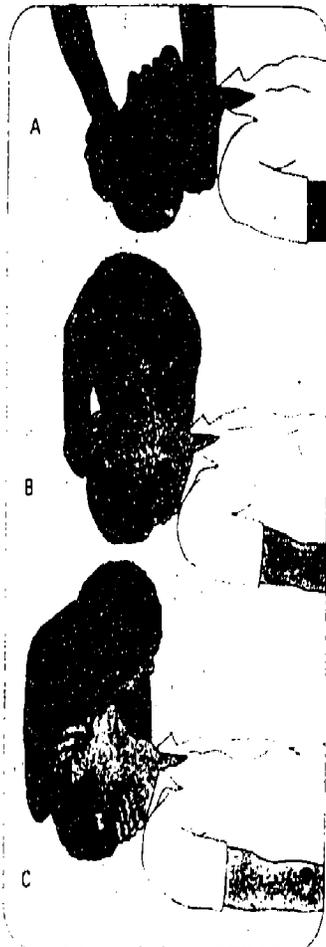
- . Place the victim on his or her back and straddle the victim's hips or one thigh, place hands properly, and press into the victim's abdomen with a quick upward thrust.

4. Repeat back blows (four) and manual thrusts at least once.



- II. Unconscious Victim - victim on his or her back.
- A. Tilt the head and attempt to ventilate the victim.
 - . Place one hand under the victim's neck, the other on the forehead.
 - . Pinch the victim's nose and seal the mouth.
 - . Rescuer blows into the victim's mouth (mouth and nose in the case of an infant) while watching for his or her chest to rise.
 - . Rescuer removes his or her mouth and looks, listens, and feels for air return and the chest to fall.
 - . Rescuer says, "Cannot be ventilated."
 - B. Give four back blows.
 - . Give the blows in rapid succession.
 - . Rescuer says, "Object still obstructs airway."
 - C. Give eight manual thrusts.
 - . Give the thrusts in rapid succession.
 - . Rescuer says, "Object still obstructs airway."

- D. Perform a finger probe.
 - . Rescuer performs the *tongue-jaw lift* by grasping both tongue and lower jaw between the thumb and other fingers and lifting.
 - . Rescuer performs the *finger probe* by inserting his or her index finger inside the victim's cheek and deeply into the throat to the base of the tongue. Use a hooking action to dislodge and maneuver the object into the mouth so it can be reached. If the object can be brought within reach, the rescuer should grasp and remove it.
 - . Rescuer says, "Object still obstructs airway."
- E. Repeat the sequence at least once--
 - . Attempts to ventilate.
 - . Four back blows.
 - . Eight manual thrusts.
 - . Finger probe.



CHOOSING CURRICULUM GUIDES

A good source of curriculum information can be obtained by writing the Technical Assistance Development System (TADS), University of North Carolina, 500 NCNB Plaza, Chapel Hill, North Carolina, 27514. Among its publications are First Chance Products: A Catalog of Instructional and Evaluative Materials and a newsletter "Cycles" which is published every two months. TADS also has other publications which would be of interest to anyone involved in early childhood education for the young handicapped child.

There are many curriculum guides on the market today. Upon investigation related to the format and contents desirable for these guides, the following criteria arose: 1) The skills and the capabilities of the young handicapped child are consistent with the activity presented. 2) Activities would be used according to developmental age, not chronological age. 3) The format of the activities contained in the guide should include:

1. Development age range
2. Purpose or objective
3. Materials and equipment
4. Directions and/or procedures
5. Evaluation for completed task
6. Variation suggestions
7. Ways to adapt activities according to specific handicaps
8. Bibliography of additional sources

Programming and Instruction Techniques for Multi-Handicapped Developmentally Disabled Individuals. Columbia, South Carolina: University Affiliated Facilities and Department of Mental Retardation, 1977. (p. 85-86)

NATIONAL ORGANIZATIONS AND INFORMATION SERVICES

The American Association for the Education
of the Severely/Profoundly Handicapped
1600 West Armory Way
Seattle, Washington 98119
(206) 283-5055

American Association on Mental Deficiency
AAMD Information Center
5201 Connecticut Avenue, NW
Washington, DC 20015

Information Service
Bureau of Child Research
University of Kansas
Lawrence, Kansas 66045

National Center for the Severely Handicapped
Jane Gibson
Co-Editor, Newsletter
2443 South Colorado Boulevard #227
Denver, Colorado 80222

Dr. Lou Brown
427 Education Building
University of Wisconsin
Madison, Wisconsin 53706

Dr. Norris G. Haring
Experimental Education Unit
CDMRC WJ-10
University of Washington
Seattle, Washington 98195

Dr. Ken Jens
Biological Science Research Center
University of North Carolina at Chapel Hill
Chapel Hill, North Carolina 27514

Dr. James Tawney
Programmed Environments Project
Porter Building
University of Kentucky
730 South Limestone
Lexington, Kentucky 40506

DIRECTORY OF ORGANIZATIONS

CONSUMERS AND PROFESSIONALS

Children with Special Needs

Advocacy Council for the Mentally Ill and Developmentally Disabled
N.C. Department of Administration
Room 107, Howard Building
112 West Lane Street
Raleigh, North Carolina 27603
Telephone: (919) 733-3111

Alexander Graham Bell Association for the Deaf
3417 Volta Place, NW
Washington, DC 20007

Association for Residences for the Retarded
Hilltop Home for Retarded Children
3006 New Bern Avenue
Raleigh, North Carolina
Telephone: (919) 834-2315

Division for Disorders of Development and Hearing
Biological Sciences Research Center
University of North Carolina
Chapel Hill, North Carolina 27514

Easter Seal Society for Crippled Children and Adults of North Carolina, Inc.
832 Wake Forest Road
Raleigh, North Carolina 27604
Telephone: (919) 834-1191

Governor's Advocacy Council of Children and Youth (0-21)
112 West Lane Street
Raleigh, North Carolina 27603
Telephone: 733-6880

North Carolina Association of Directors of Developmental Disability Centers
Rockingham Enrichment Center
Post Office Box 441
Madison, North Carolina 27025
Telephone: (919) 427-4735

North Carolina Association for the Emotionally Troubled
624 W. Cameron Avenue, Trailer G
Chapel Hill, North Carolina 27514

North Carolina Association for Retarded Citizens
3300 Woman's Club Drive
Raleigh, North Carolina 27612
Telephone: (919) 782-5114

North Carolina Mental Health Association
Suite 222
3701 National Drive
Raleigh, North Carolina 27612
Telephone: (919) 782-7662

North Carolina Speech, Hearing and Language Association, Inc.
3008-L Lawndale Drive
Greensboro, North Carolina 27405

Parents and Professionals for Handicapped Children
Post Office Box B-26214
Raleigh, North Carolina
Telephone: (919) 832-7535

Spina Bifida Association of North Carolina
Post Office Box 4831
Winston-Salem, North Carolina 27105

All Children

American Academy of Pediatrics
North Carolina Chapter
3000 New Bern Avenue
Raleigh, North Carolina 27610
Telephone: 966-5301

North Carolina Conference for Social Services
Post Office Box 532
Raleigh, North Carolina 27602
Telephone: 733-3593

North Carolina Congress of Parents and Teachers
3501 Glenwood Avenue
Post Office Box 10607
Raleigh, North Carolina 27605

North Carolina Council of Family Service Agencies, Inc.
518 West Jones Street
Raleigh, North Carolina
Telephone: 834-6264

North Carolina Family Life Council
Route 9, Box 112
Salisbury, North Carolina
Telephone: 633-2126

North Carolina Federation of Child Development Centers
2111 Concord Street
Durham, North Carolina 27707
Telephone: 445-3002

Language and Communication

1. Bliss, C.K., Ontario Crippled Children's Centre Symbol Communication Research Project: Teaching Guideline. Ontario: Crippled Children's Centre, September, 1974. (available from: 350 Ramsey Road, Toronto, Ontario M4G1R8)
2. Carren, J., Non-Speech Language Imitation Program, H & H Enterprises, Inc., Box 3342, Lawrence, Kansas 66044.
3. Fredricks, H.D., Bud, et al., The Teaching Research Initial Expressive Language Programs. Monmouth, Oregon: Instructional Development Corporation, 1974.
4. McDonald, J.D., and Schultz, A.R., "Communication Boards for Cerebral Palsied Children," Journal of Speech and Hearing Disorders, 1973, XXXVII (1), 73-88.
5. MacDonald, J.D., and Horstmeier, D.S., Environmental Language Intervention Program. Columbus, Ohio: Charles E. Merrill, 1978.
6. Vanderheiden, G., and Gilly, K., "Non-Vocal Communication Techniques and Aids for the Severely Physically Handicapped," Baltimore: University Park Press, 1976.
7. Vanderheiden, G., & Harris-Vanderheiden, D., "Communication Techniques and Aides for the Non-Vocal Severely Handicapped." In L. Lloyd (ed.), Communication Assessment and Intervention Strategies. Baltimore: University Park Press, 1976.
8. Vicker, B. (Ed.) Non-Vocal Communication System Project: 1964/1973. Iowa City: University Hospital School, University of Iowa, 1974.

Self-Help

1. Azrin, H.H. and Foxx, R.M., Toilet Training in Less Than a Day, Champaign, Illinois: Research Press.
2. Cloth Research Development Foundation, One Rockefeller Plaza, Suite 1912, Suite 1912, New York, N.Y. 10020. Information about Levi Strauss Jeans adopted for handicapped and sources of other adopted clothes.
3. Fredricks, H.D. Bud; Bladwin, Victor L.; Grove, David N.; and Moore, William G., Toilet Training the Handicapped Child, Instructional Development Corporation. P.O. Box 361, Monmouth, Oregon 97361, 1975. \$2.50
4. Holser-Buehler, P., The Blanchard Method of Feeding the Cerebral Palsied. The American Journal of Occupational Therapy, 1966, 20 (1), 31-34.
5. Kamenetz, H.L., The Wheelchair Book, Springfield, Illinois; Charles C. Thomas, 1969.
6. Lansky, Vicki, Feed Me! I'm Yours. Bantam Books, New York, 1974.
7. Project MORE Daily Living Skills Programs. How to do MORE: A Manual of Basic Teaching Strategy. Bellevue, Washington: Edmach Associates, 1972-1975.
8. Washam, V., The-Hander's Book: A Basic Guide to Activities of Daily Living. New York: John Day, 1973.

Education

1. Anderson, R.M. and Greer, F.G., Educating the Severely and Profoundly Retarded. Baltimore, M.D.; University Park Press, 1976. \$14.95
2. Alpern, C.D. and Ball, T.J., Education and Care of Moderately and Severely Retarded Children, With a Curriculum and Activities Guide. Seattle, Washington, Special Child Publications, 1971.
3. Ball, T. (Ed.), Guide for the Instruction and Training of the Profoundly Retarded and Severely Multi-Handicapped Child. Santa Cruz, California, Santa Cruz County Board of Education.
4. Bigge, J.L. and O'Donnell, P.A., Teaching Individuals with Physical and Multiple Disabilities. Columbus, Ohio: Special Press, 1977. \$10.95
5. Developing Effective Individualized Education Programs for Severely Handicapped Children and Youth. Columbus, Ohio: Charles E. Merrill, 1977. \$10.95
6. Fredericks, H.D., Bud, et al. A Data Based Classroom for the Moderately and Severely Handicapped, Instructional Development Corporation, P.O. Box 361, Monmouth, Oregon 97361, 1975. \$9.50
7. Fredericks, H.D., Bud, et al, The Teaching Research Curriculum for Moderately and Severely Handicapped. Charles C. Thomas, Publisher, 301-327 East Lawrence Avenue, Springfield, Illinois, 1976. \$18.50
8. Haring, N.G., and Brown, L.J., (Eds.), Teaching the Severely Handicapped (Vol. 1) New York: Grune & Stratton, 1976.
9. The Portage Guide to Early Education, Portage, Wisconsin: Cooperative Educational Service, 1973. \$32.00
10. Snell, M.E., Systematic Instruction of the Moderately and Severely Handicapped, Columbus, Ohio: Charles E. Merrill, 1978. \$17.95
11. Sontag, E., Smith, J., Certo, N. (Editors) Educational Programming for the Severely and Profoundly Handicapped. The Council for Exceptional Children, Division on Mental Retardation, Reston, Virginia, 1977. (Order from the CEC Division on Mental Retardation, 1834 Meetinghouse Road, Boothwyn, Pennsylvania 19061. \$14.95

Parents

1. Auerbach, A.B., Parents Learn Through Discussion: Principals and Practices of Parent Groups Education. New York: John Wiley & Sons, Inc., 1968. \$11.95
2. Bladwin, V.L., Fredricks, H.D. Bud, and Brodsky, G., Isn't It Time He Outgrew This? or A Training Program for Parents of Retarded Children. Charles C. Thomas, Publishers, 301-327 East Lawrence Avenue, Springfield, Illinois, 1972. \$10.50
3. Becker, W.C., Parents Are Teachers. Champaign, Illinois: Research Press Company, 1971.
4. Lillie, D.L. and Trohanis, P.L., Teaching Parents to Teach. New York: Walker and Company, 1976. \$11.95
5. Patterson, G. and Guillon, E., Living With Children: New Methods for Parents and Teachers. Champaign, Illinois: Research Press, 1968, \$3.50

Physical and Occupational Therapy

1. Berzen, Adrienne, Selected Equipment for Pediatric Rehabilitation, Blythedale, Children's Hospital, Bradhurst Avenue, Valhalla, N.Y. 10595, 1974.
2. Bobath, K. The Motor Deficit in Patients with Cerebral Palsy, Suffolk, England: William Heineman, 1966.
3. Buttram, Beverley and Brown, Glenna, Developmental Physical Management for Multi-Disabled Child, University of Alabama, Area of Special Education, P.O. Box 2592, University, Alabama, 35486.
4. Cliff, Shirley, et al. Mothers Can Help, 2nd Ed., El Paso Rehabilitation Center, El Paso, Texas.
5. Cratty, B.J. Developmental Games for Physically Handicapped Children, Palo Alto, California: Peek, 1969.
6. Farber, Shereen, Sensoremotor Evaluation and Treatment Procedures, Indiana University Foundation, 1974.
7. Finnie, Nancie, Handling the Young Cerebral Palsied Child at Home, Dutton & Co., New York, 1970.
8. Robinault, Isabel, Functional Aides for the Multiply Handicapped, Harper & Row, New York, 1973.
9. Slominski, Anita, "Please Help Us Help Ourselves - Inexpensive Adapted Equipment for the Handicapped," Cerebral Palsy Clinic, Indiana University Medical Center, Indianapolis, Indiana, 1970.
10. Vulpe, Shirley, Vulpe Assessment Battery, National Institute of Mental Retardation, Toronto, Ontario, Canada M3T, IP3/1977.
11. Let's - Play - To - Grow Kit includes incentive materials for up to 60 hours of play for \$2.50. Write: Mrs. Eunice Kennedy Shriver, The Joseph P. Kennedy, Jr. Foundation, 1701-K Street, NW, Suite 205, Washington, D.C. 20006.

Vocational Skill Training

- Anderson, R.M., Geer, J.G., Jenkins, W.M., & Dietrich, W.L.
"The Severely Handicapped: A New Challenge for Rehabilitation,"
in E.M. Anderson & J.G. Greer (Eds.), Educating the Severely
and Profoundly Retarded. Baltimore: University Park Press, 1976,
325-333.
- Bellamy, G.T., Peterson, L., & Close, D. "Habilitation of the Severely
and Profoundly Retarded: Illustrations of Competence," in
R.M. Anderson & J.G. Greer (Eds.), Educating the Severely and
Profoundly Retarded. Baltimore: University Park Press, 1976,
335-347.
- Friedl, M. Supplement to: A selected bibliography (partially annotated)
related to the vocational training of severely handicapped persons.
American Association for the Education of Severely/Profoundly Handicapped
Review, 1976, 1, 46-58.
- Garner, R.E., Lacy, G.H., Creasy, R.F. "Workshops - Why, What, Whether?"
Mental Retardation, 1972, 10(3), 25-28.
- Gold, M.W. "Preworkshop Skills for the Trainable: A Sequential Technique."
Education and Training of the Mentally Retarded, 1968, 3, 31-37.
- Gold, M.W. "Research on the Vocational Habilitation of the Retarded:
The Present, the Future," in N.R. Ellis (Ed.), International Review
of Research in Mental Retardation, Vol. 6. New York: Academic Press,
1973, pp. 97-147.
- Gold, M.W. "Stimulus Factors in Skill Training of the Retarded on a Complex
Assembly Task: Acquisition, Transfer and Retention." American Journal
of Mental Deficiency, 1972, 76, 517-526.

Miscellaneous

1. Bleck, E.E., and Nagel, D.A. (Eds.) Physically Handicapped Children: A Medical Atlas for Teachers. New York: Grune and Stratton, 1975. \$12.50.
2. Buscaglia, L., The Disabled and Their Parents: A Counseling Challenge Thorofare, N.S.: Charles B. Slack, 1975 (Available from 6900 Grove Road, Thorofare, New Jersey 08086).
3. Goldstein, H., The Social Learning Curriculum. Columbus, Ohio: Charles E. Merrill, 1974.
4. Gordon, S., Living Fully: A Guide for Young People With a Handicap, Their Parents, Their Teachers and Professionals. New York: John Day, 1975. (Available from 257 Park Avenue, South, New York, New York 10010, for \$8.95).
5. Haslam, R.H.A., III, Valletutte, P.J., Medical Problems in the Classroom. Baltimore, Maryland: University Park Press, 1975. \$12.50.

Individual Education Plan

Date: June 1, 1978

STUDENT	COMMITTEE																
<p>Name: Kevin Wilson</p> <p>School: Olsen Jr. High School</p> <p>Class: Severely Handicapped</p> <p>Current Placement: Severely Handicapped</p> <p>Date of Birth: 6/5/66 Age: 12 years old</p>	<table border="0"> <thead> <tr> <th data-bbox="893 504 974 567"><u>Sign</u></th> <th data-bbox="1266 514 1380 577"><u>Position</u></th> </tr> </thead> <tbody> <tr> <td></td> <td>Principal</td> </tr> <tr> <td></td> <td>Parent</td> </tr> <tr> <td></td> <td>Teacher</td> </tr> <tr> <td></td> <td>Psychologist</td> </tr> <tr> <td></td> <td>Physical Therapist</td> </tr> <tr> <td></td> <td>Occupational Therapist</td> </tr> <tr> <td></td> <td>Speech Therapist</td> </tr> </tbody> </table> <p style="text-align: right;">IEP From: <u>6/78</u> to <u>6/79</u></p>	<u>Sign</u>	<u>Position</u>		Principal		Parent		Teacher		Psychologist		Physical Therapist		Occupational Therapist		Speech Therapist
<u>Sign</u>	<u>Position</u>																
	Principal																
	Parent																
	Teacher																
	Psychologist																
	Physical Therapist																
	Occupational Therapist																
	Speech Therapist																
<p><u>Medical Concerns</u> (Drugs, Seizures, etc.):</p> <p>Medication for seizure (1 tsp. Phenobarbital) administered at 8 am, 12 pm and 8 pm. The teacher will administer the noon dosage. The only restrictions on physical activity is to avoid spinning and flickering lights.</p> <p>Kevin has a diagnosis of Cerebral Palsy with Spastic Diplegia.</p>	<p><u>Precautions and Concerns:</u></p> <p>Kevin exhibits non-competent behavior when he does not like to complete work. Ignore this behavior and do not reinforce or allow other activities until work is completed.</p> <p>Kevin is ambidextrous but shows a preference for his right hand. The occupational therapist will provide treatment to establish dominance.</p> <p>Kevin sees riding in his wheelchair as a game; he is learning to use a walker and should be encouraged to use it under the direction of the physical therapist.</p>																

96

1:1

115

Curriculum Area: *Gross Motor*

Present Level of Functioning: *Kevin can stand unsupported with a walker and is able to take steps with maximal support.*

Annual Goal: *Kevin will be able to walk independently with a walker for functional classroom activities.*

Short-Term Objectives (Include Evaluation Criteria)	Services Needed	Duration of Services	
		Beginning Date	Ending Date
<ol style="list-style-type: none">Kevin will stand with walker without support and walk 3 feet with standby supervision of the physical therapist.Kevin will walk with the walker 10 feet with verbal support.Kevin will move independently to classroom activity areas.Using a walker, Kevin will be able to rise and stand from a chair and sit in a chair after walking without assistance.	Physical Therapist	9/78	

Curriculum Area: *Fine Motor*

Present Level of Functioning : *Kevin can pick up objects using a pincer grasp, and is able to complete match to sample tasks.*

Annual Goal: *Kevin will match a bead pattern of various shapes and colors and string them in a left-to-right sequence.*

Short-Term Objectives (Include Evaluation Criteria)	Services Needed	Duration of Services	
		Beginning Date	Ending Date
<ol style="list-style-type: none"> 1. Kevin will match the bead pattern (one color and shape and string them in a left-to-right sequence correctly for 4 of 5 trials 2. Kevin will match the bead pattern (two colors and one shape) and string them in a left-to-right sequence correctly for 4 of 5 trials. 3. Kevin will match the bead pattern (two colors and two shapes) and string them in a left-to-right sequence correctly for 4 of 5 trials. 4. Kevin will match the bead pattern of various shapes and colors and string them in a left-to-right sequence correctly for 4 of 5 trials. 	<p>Occupational Therapist Teacher/Aide</p>	<p>9/78</p>	

Curriculum Area: *Communication*

Annual Goal: *Kevin will point to a picture of food, cup or commode at the appropriate time to indicate his needs.*

Short-Term Objectives (Include Evaluation Criteria)	Services Needed	Duration of Services	
		Beginning Date	Ending Date
<p>1. Kevin will point to a picture of food when it is time for snack and meals correctly for 4 of 5 trials.</p> <p>2. Kevin will point to the picture of the commode when he needs the bathroom correctly for 4 of 5 trials.</p> <p>3. Kevin will point to the picture of a cup when he wants a drink correctly for 4 of 5 trials.</p> <p>a. no distractor b. one distractor c. two distractors</p>	Speech Therapist	9/78	

86



Curriculum Area: Cognitive (Pre-Academic)

Present Level of Performance: Kevin can match objects, sort key color and attributes.

Annual Goal: Kevin will point to a circle, square, and triangle on command.

Short-Term Objectives (Include Evaluation Criteria)	Services Needed	Duration of Services	
		Beginning Date	Ending Date
<p>66</p> <ol style="list-style-type: none">1. Kevin will point to a circle (square, triangle) with no distractors, for three consecutive days.2. Kevin will point to a circle (square, triangle) with one distractor for three consecutive days.3. When presented a circle, square and triangle, Kevin will point to the correct shape on command with 100% accuracy for three consecutive days.	Teacher/Aide	9/78	

122

123

Curriculum Area: *Activities of Daily Living*

Present Level of Functioning: *Kevin can remove his jacket and shirt when given assistance with buttons*

Annual Goal: *Kevin will unbutton his shirt and coat independently.*

Short-term Objectives (Include Evaluation Criteria)	Services Needed	Duration of Services	
		Beginning Date	Ending Date
<ol style="list-style-type: none">1. Kevin will unbutton 3, 1" buttons, independently for 3 consecutive days.2. Kevin will unbutton 3, 3/4" buttons independently, for 3 consecutive days.3. Kevin will unbutton 3, 1/2" buttons independently for 3 consecutive days.4. Kevin will unbutton any button on his shirt or coat independently.	Occupational Therapist Teacher/Aide	9/78	

124

125

Percent of time to be spent within the regular classroom - 0%. It is the recommendation of the local placement committee that the program for the severely handicapped will provide the least restrictive educational alternative and best meet Kevin Wilson's present needs.

I have had the opportunity TO PARTICIPATE in the development of the Individual Education Program.*

Parent's Signature

*Parents must be invited and encouraged to participate. However, the signature of the parents does not necessarily mean that they agree with the IEP.

REFERENCES

Abt Associates. Assessment of Selected Resources for Severely Handicapped Children and Youth (Vol. 1). Cambridge, Mass.: Abt Associates, 1974.

Bigge, June L. and O'Donnell, Patrick A. Teaching Individuals with Physical and Multiple Disabilities. Columbus, Ohio: Charles E. Merrill, 1976.

Epilepsy. North Carolina Department of Human Resources, Division of Health Services, December, 1977.

Justen, Joseph E. III. "Who Are the Severely Handicapped? A Problem in Definition". AAESPH Review, 1976, 1(5), p. 1-12.

Rules Governing Programs and Services for Children with Special Needs. Raleigh: Division for Exceptional Children, North Carolina Department of Public Instruction, October 1, 1978.

Section 504 of the Rehabilitation Act of 1973 - Fact Sheet, July, 1977, HEW.