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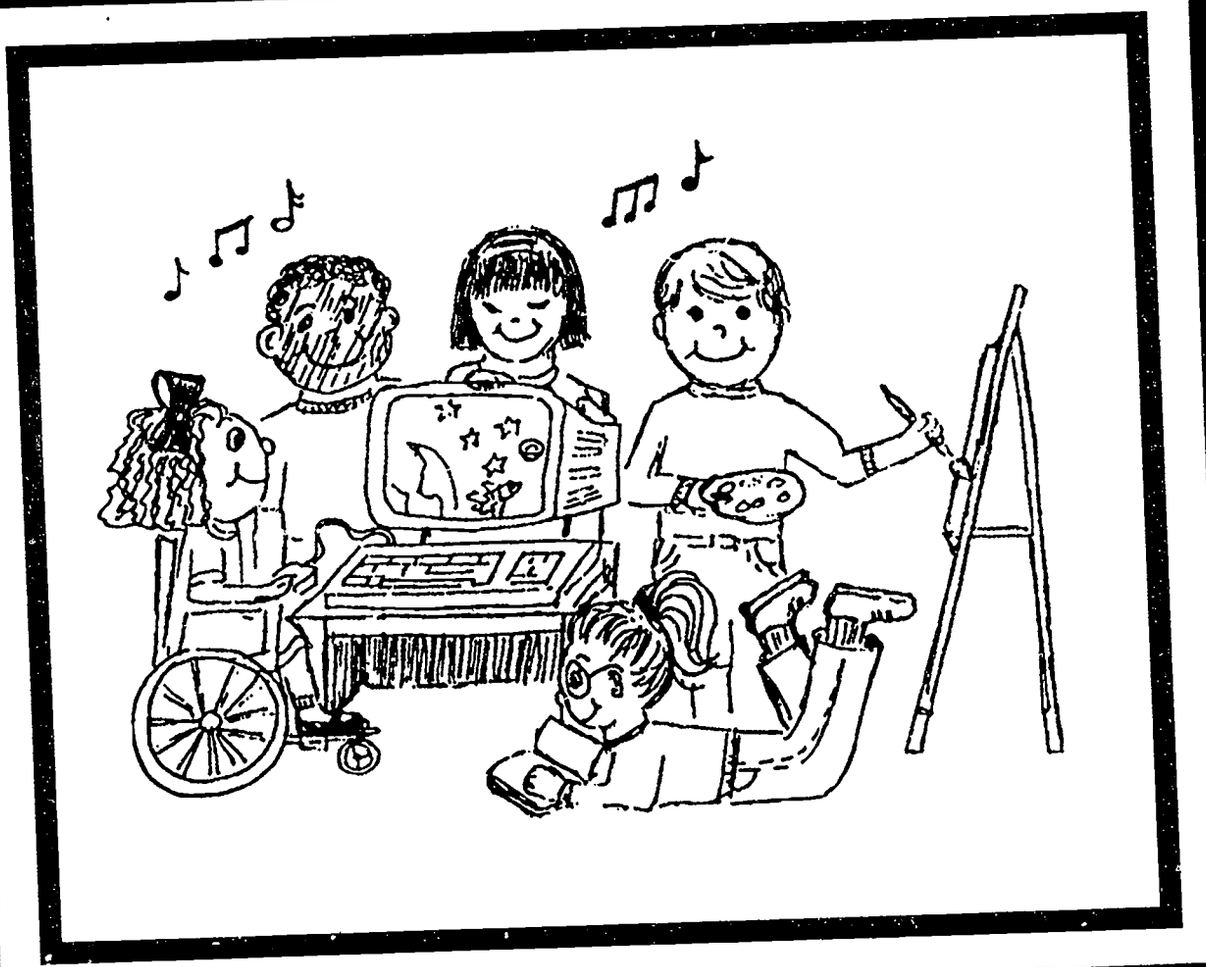
ABSTRACT

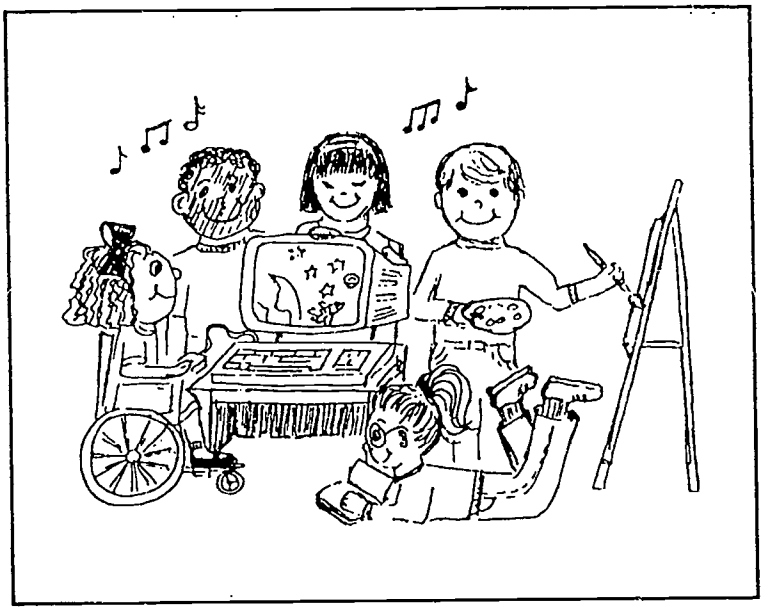
A guide to identifying, placing, and instructing children with severe disabilities, including deaf-blindness, is presented. Identification and placement information focuses on locating and referring children in need of special education services the role of committees and staff members, the individualized education program, entrance and placement criteria, inclusive education, curriculum content, additional services available to the child, building standards, and instructional materials. Instructional suggestions focus on: positions for children with poor physical/muscle control, communication with students with multisensory disabilities, visual and auditory perception training, tactile perception training, motor training, cognitive and conceptual skills training, behavior management, recreational activities, and orientation and mobility training. Appendices include: a chart detailing 20 classroom assessment instruments, a list of 105 exemplary curricula for severely/profoundly mentally handicapped and multiply handicapped persons, a list of 27 publishers of curricular and learning materials, a list of 7 journals and 28 books on curricula, a list of 41 toys/activities and 16 toy companies, descriptions of 130 U.S. resource organizations and selected publications, a list of 129 North Carolina organizations, and a 29-item bibliography. (SW)

DELIVERING EFFECTIVE INSTRUCTION

To Students with Deaf-Blindness and/or Other Severe Disabilities



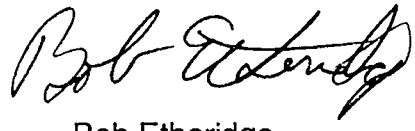
DELIVERING EFFECTIVE INSTRUCTION TO STUDENTS WITH DEAF-BLINDNESS AND/OR SEVERE DISABILITIES



FOREWORD

This manual was prepared as a resource guide for local administrators, principals, teachers and others who are responsible for providing services to the severely/profoundly disabled population including the deaf-blind. It was developed by teachers and others who work with students with severe disabilities. It is a practical guide and ready reference to information about placement, instructional planning and programming, related services, and other relevant items that practicing teachers have identified as necessary, especially for those who have not had experience in teaching this population.

This manual should provide a much needed resource for those systems that have not had the opportunity to engage in extensive specialized training in this area and will assist as we all strive to provide quality educational services to the children of North Carolina.



Bob Etheridge
State Superintendent of Public Instruction

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TABLE OF CONTENTS

PURPOSE

Where to begin? What to do? What to use? Who can help?

The purpose of this manual is to provide critical information to teachers about how to identify, place, and teach children with severe disabilities. This manual is intended to be a practical guide and reference material. It will tell you how to: 1) obtain a comprehensive evaluation of a child, 2) convene the appropriate committees to analyze these evaluations and determine the child's needs for instruction and services, and 3) deliver a full, instructionally-rich educational program.

This publication is not meant to serve as a "*cookbook*" or "*curriculum*" for serving these students. The components of this manual were developed by professionals working with this population. The content has been deemed necessary for others to know as they plan fo. and instruct deaf-blind and severely disabled pupils. However, it is impossible to address every aspect and situation experienced in serving this population.

In the process of writing this manual, two critical questions were asked in regard to the information it contains. First, "Is this something that those working with deaf-blind or severely disabled pupils need to know?" Second, if the answer to the first question was "Yes," then "Is this information in another document that is readily available so that it can be referenced rather than reproduced here?"

The manual is designed to follow this process step-by-step. If you read it cover to cover, you will understand, both legally and educationally, the logic of the process laid out for you. In addition, the manual has examples of forms to use, instructional techniques to employ, and materials and technology that will assist you.

INTRODUCTION

"To be seen as different is hard to understand
When all we want is the chance to make friends,
to go to school or have a competitive job and
have a home just like everybody."

Education is essential to all people; without it no individual can hope to survive, much less become a contributing member of society. Until very recently, children with severe disabilities were virtually ignored by the American educational system. Fortunately, this system is changing every day. Beginning in the mid-1970s, litigation and significant pieces of legislation have had a tremendous impact on assuring that children with disabilities have access to education equal to that of children without disabilities.

The most important piece of legislation to affect access to education for children with severe disabilities was Public Law 94-142, The Education for All Handicapped Children Act, also know as the EHA. The EHA had several major provisions:

1. Establish a goal of providing full educational opportunities to all handicapped children, ages 5 - 21;

2. Implement procedures to insure that handicapped children and their parents or guardians are guaranteed procedural safeguards in determinations regarding the identification, evaluation, and educational placement of handicapped children;

3. Establish procedures to insure that handicapped children, including those in public and private institutions, are educated with children who are not handicapped, to the maximum extent possible;

4. Assure that removal of handicapped children from the regular educational environment occurs only when education in regular classes cannot be achieved satisfactorily through the use of supplemental aids and services, due to the nature or severity of the handicap; and

5. Select and administer testing and evaluation materials and procedures used in the classification and placement of handicapped children in a manner that is free from racial or cultural bias.

The concept of full opportunity was translated into the acronym FAPE, free appropriate public education. This means that the education must be delivered free of charge to the parent(s)

whether it is in a public or (when placed in by the LEA) in a nonpublic facility, and be designed to meet the child's unique needs. The types of children to whom this law applies were specified: 1) deaf, 2) deaf-blind, 3) hard of hearing, 4) mentally retarded, 5) multihandicapped, 6) orthopedically handicapped, 7) other health impaired (e.g., heart condition, leukemia), 8) seriously emotionally disturbed, 9) specific learning disabled, 10) speech impaired, and 11) visually impaired. Not only did the law guarantee appropriate instruction, it also listed a host of "related services" which could be provided to the handicapped child to guarantee his/her proper development: 1) audiological services, 2) counseling services, 3) early identification services, 4) medical services, 5) occupational therapy services, 6) parental counseling and training, 7) physical therapy, 8) psychological services, 9) recreation, 10) school health services, 11) social work services in schools, 12) speech pathology, and 13) transportation.

This law also intricately defined procedures that school personnel must follow to assure that the needs of children with disabilities are addressed and that parents are apprised of and included in each important step of the process.

The concept of educating children with disabilities in a situation as close as possible to that they would experience if they were not disabled has had a profound impact on the design of education. This concept, frequently known as mainstreaming, is referred to within this law as "least restrictive environment." The basis for this concept is the belief that "separate is not equal." As a result of this basic premise, there has been an ongoing trend toward deinstitutionalization of children with severe disabilities.

In order to work toward integration of children with disabilities into the mainstream of education and society, two basic types of training are highlighted for severely disabled children: 1) skills in independent living (e.g., personal care, shopping, food preparation), and 2) planning and coordination of services in preparation for transitioning into the community (e.g., learning to use existing community resources, working with Social Services and Vocational Rehabilitation).

The last major provision assures that testing that is used takes into account the impact of the child's disability. For example, a deaf child should not be given an IQ (intelligence quotient) test that relies heavily on language ability. A child with cerebral palsy should not be given a timed test to determine achievement. In addition, the EHA assures that no single test is used to determine a disabled child's needs and abilities, and that testing and analysis of the meaning of the results is done by a team of qualified professionals.

In October, 1986, Congress passed another significant piece of legislation, Public Law 99-457, an amendment to P.L. 94-142. This law extended the age during which states are responsible for providing education down to birth. This law's aim is to provide early intervention services to "infants, toddlers and preschoolers with disabilities" and to provide the legislative foundations for a family-centered approach in early intervention. Parental and interagency

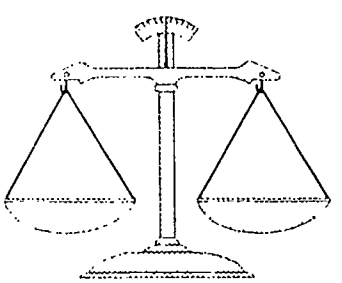
involvement are emphasized in all areas of programming and services delivery.

This law mandates that one public agency will take the lead in coordinating services on behalf of families of young children with disabilities. In North Carolina funds to enact this mandate have been pooled under the Preschool Grant Project. This project is administered by the Department of Public Instruction which serves as the lead agency. Ninety-one percent (91%) of the grant monies go to the 118 local education agencies (school districts), 6 state-operated programs, and 24 area mental health centers. These programs work cooperatively with existing programs such as Head Start, developmental day centers, mental health centers, and private nursery school providers.

In 1990, P.L. 94-142 was again amended by Public Law 101-476. The first noticeable difference in this piece of legislation is that the term, handicapped children, is replaced by the term, children with disabilities. The EHA now has become known as the IDEA, The Individuals with Disabilities Education Act. The amendments make minor but significant revisions to the existing authority. First, the law added several disabling conditions to those already included -- autism, and traumatic brain injury. It also added several types of related services to those that were already authorized -- social work services and rehabilitation counseling. Two other major changes were made: 1) emphasis on providing assistive devices (e.g., hearing aids, communication boards) and services, and 2) development of goals and objectives for students to transition into adult services and the community (ages 16 and up mandated).

Implementing these legal mandates for children with severe disabilities necessitates utilization of the fullest potential of this law and scrupulous adherence to its procedures. That is, the more complex the child, the more services will be utilized, and the more individuals and agencies will need to be coordinated to assure quality education. Programs must meet the educational standards established not just by federal law, but also by state law and the State Board of Education.

Persons with disabilities require a wide range of specialized services from a highly skilled, dedicated, and diverse staff. This component is necessary if these persons are to develop to their fullest potential and be integrated into society. Every individual, with or without disabilities, needs an environment which encourages growth. Everyone needs an opportunity to try and an opportunity to fail -- in other words, an opportunity to learn.



WHAT CHILDREN ARE DEFINED AS "SEVERELY DISABLED"?

The term, "severely disabled," refers to those persons who function at no more than half of their chronological age expectancy in any or all of a number of developmental areas (e.g., cognitive, emotional, motor, perceptual). These individuals typically, also, exhibit a combination of handicapping conditions of such magnitude and significance that they require extensive structure in learning situations.

Some of the characteristics these individuals may exhibit include:

- Difficulty maintaining basic life systems (e.g., tube feeding, postural drainage, suctioning, tracheal tubes, etc.);
- Difficulty communicating wants and needs:
- Difficulty processing incoming stimuli as a result of sensory impairments (e.g., visual, auditory, tactual, kinesthetic, vestibular);
- Difficulty achieving developmental milestones (e.g., range of motion, orientation to setting, environmental manipulation, ambulation);
- Difficulty with daily living skills (e.g., eating, dressing, personal hygiene, toileting);
- Difficulty controlling inappropriate behaviors (e.g., self-injurious, self-stimulatory, aggressive);
- Difficulty coping with tasks and demands in the environment (e.g., interpersonal, making judgments, cause and effect, accomplishing tasks);
- Difficulty with cognitive functioning (e.g., perception, reasoning).

This is not an all-inclusive list of characteristics, but is meant to serve as a guide in identifying and determining programming for persons with severe disabilities. A person does not have to have a cognitive deficit (i.e., be mentally retarded) to be considered severely disabled. Rather, the determination emanates from an evaluation of how strongly the disability(ies) affects the person and how many disabilities are involved.

The educational needs of the person who is severely disabled will require a highly structured environment with a recommended staff-to-pupil ratio of 1 teacher and 1 assistant for up to 6 pupils and 1 teacher and 2 assistants for 8 pupils. (These ratios are provided by "Procedures

Governing Programs for Children with Special Needs.") In addition, the child with severe disabilities must be provided with a systematic, monitored program approach within the least restrictive environment.

Programming for individuals with severe disabilities usually focuses on developing communication, social, motor, daily living, sensory integration, transition, and cognitive skills utilizing a functional approach to instruction. A person with a severe disability may not be able to care for personal needs, may use a wheelchair, and/or may require 24 hour a day nursing care. However, with recent developments in assistive technology and advances in the precision of instruction, many persons with severe disabilities can achieve a level of semi-independence never before thought possible.

PROCEDURES FOR IDENTIFICATION AND PLACEMENT

As previously explained, federal special education law provides very specific procedures that school systems are to follow in finding, evaluating, identifying, determining the needs for, and educationally placing children with disabilities. Failure to adhere to these procedures can be considered as serious legally as failure to provide an adequate education. The reason for this is that the majority of these procedures guarantee that parents have the opportunity of having a "say" in their child's education at every step of the process.

CHILD FIND

A heavy emphasis of special education law has been to find children who are in need of special education services and have not previously been identified. When P.L. 94-142 was initially enacted, much of the federal dollars expended to implement this law went into child find efforts. P.L. 99-457, the amendments that specifically focus on children, ages 0 - 5, further emphasize the importance of finding children as early as possible. This is considered critical because the earlier children receive intervention services, the more likely they are to profit from the intervention. As previously mentioned, an interagency model is used with this young population since they spend the majority of their time with their parents. Thus, child-find efforts work with hospitals, social services, pediatricians, and day care centers to find these children and assure that their early educational needs and those of their parents are addressed.

REFERRAL

When a teacher, parent, or other involved person recognizes that a child is exhibiting developmental problems or that a child's educational needs are not being met, a referral must be made. This referral should be in written form to identify the child, his/her birth date, where he/she can be located (i.e., home address or class), the presenting problem(s), and a synopsis of the child's current strengths and weaknesses. This written referral should be given to the principal of the school the child is currently attending or the school the child would attend if he/she were of school age or went to a public school. The referral also may be given to the child's classroom teacher or the superintendent or other appropriate official of the local education agency (LEA) or school district. For preschool children, the referral also may be given to the person designated to be in charge of preschool services for students with disabilities.

The individual accepting the referral will be responsible for contacting the head of the special education division of the local education agency if the child is not presently attending a public school to assure the involvement of the LEA in all further steps of the process. For example, if the child is receiving services in a nonpublic institutional setting, the teacher or principal should send a copy of the referral or a notice regarding the referral to the child's LEA director of special education.

SCHOOL-BASED COMMITTEE

The function of the School-Based Committee is to coordinate evaluation and identification services for a child referred for special education consideration. The School-Based Committee is used in referrals for children, ages 5 - 21. For preschool age children, the School-Based Committee and the Administrative Placement Committee have been combined and are described in this manual under "Preschool Transition/Placement Committee."

The School-Based Committee is responsible for receiving referrals for consideration of special education services for individual children, making the necessary arrangements for evaluations of those children, determining (based on the results of the evaluations) the child's eligibility for special education, and designing, on paper, an educational program that will address the child's identified needs. In accordance with federal mandates, the School-Based Committee provides a team framework for handling this process. Because the needs of children with disabilities are so varied and complex, it is important to utilize the thinking of a group of professionals in evaluating and determining the needs of a child with severe disabilities.

SCREENING/EVALUATION

Screening is the process of doing a cursory assessment of a child's needs for further evaluation. Screening (e.g., vision or hearing) may be done on a routine basis by a school or medical practice. A screening may be done for one of two reasons. Routine screenings, such as vision, are given to all young children. Sometimes a child fails to pass a routine screening. At other times, a child is intentionally put through a screening because there is a suspicion that he/she may fail it and this determination must be made before the school decides to go forward with the expense of a full evaluation. A full evaluation provides you with a comprehensive understanding of a child's ability or achievement in a particular area.

Before any action is taken with respect to an initial placement of a handicapped child in a special education program, a full and individual evaluation of the child's educational needs must be done. Reevaluation should be conducted every three years or sooner if special conditions warrant it or if a request is made by the child's parent or teacher. The following requirements apply for tests and other materials used for initial evaluations and reevaluations:

1) Parents must be informed in writing of the school's desire to evaluate their child for eligibility for special education services. This notification must explain what the school intends to do and why it intends to do these things.

2) Written permission must be obtained from the parent(s) or guardian(s) for any initial evaluation.

3) Evaluations must be done by a multidisciplinary team (i.e., professionals from a variety of backgrounds).

4) No one type of evaluation can be used to determine a child's eligibility.

5) Tests must be selected that accurately reflect a child's achievement level or aptitude even if he/she has a sensory, motor, speaking, or other type of impairment.

6) The child must be assessed in all areas related to the suspected disability.

Types of screening and evaluation for determining eligibility for special education services include, but are not limited to:

1) educational/developmental
2) psychological
3) adaptive behavior
4) motor
5) medical
6) speech/language
7) audiological
8) otological
9) ophthalmological or optometric
10) vocational

Special identification procedures are used with certain types of disabled children:

1) Academically gifted
2) Behaviorally-emotionally disabled,
3) Hearing impaired,
4) Mentally handicapped,
5) Multihandicapped and severely/profoundly mentally handicapped,
6) Pregnant,
7) Specific learning disabled,
8) Preschool.

These special procedures can be found in Section .1509 of North Carolina State law. If a

student qualifies for more than one of these categories (e.g., he/she is severely/profoundly handicapped and hearing impaired), special procedures for both categories must be utilized.

Serious scrutiny should be made of testing done on a child. If test results appear spurious or do not support your understanding of how a student is functioning, additional testing should be implemented. At least during an initial intake evaluation, a complete battery of tests should be done. These should include a measure of intellectual capacity, diagnostic analyses of learning difficulties, and assessment of academic achievement.

The following are some important facts to consider when conducting an evaluation and analyzing test results:

1) Tests are usually based upon certain statistical concepts, such as normal distribution, reliability, standard deviation, regression toward the mean, and validity. Without understanding such concepts, you would probably be hard pressed to interpret the results of a test.

2) Always check to see if a test is out of date or has been revised. Revisions are important because expectation of learning changes over the year, and the original norms may no longer be valid, or error in original norming may have been corrected.

3) Make sure that the test is appropriate for a child of that age.

4) It is important to know what population each test has been normed on because that is the group to which the child will be compared in the results. For example, was it normed on deaf children as well as hearing children? Were all the children it was normed on from the same kind of educational program or socioeconomic group? A little investigation may reveal that the child and the normed group have very little in common.

5) Cultural bias may be a consideration. Refer to your norming information and review the test items yourself. For deaf children, cultural bias may relate to information that is particularly related to audition; for blind children, to vision.

6) Some tests require that the person administering the test have certain credentials, specified training, or experience giving the test under supervision of a specially trained person. Many tests pose particular difficulties for administration with deaf children. If sign language is used, does the possibility exist that the iconicity (similarity of the sign to the real life object or action) gives away the answer on the test? If fingerspelling is used, are we testing the child's ability to spell rather than his/her knowledge of the material? Tests that have been developed or normed specifically for deaf children, like the Stanford Achievement Test--Hearing Impaired (SAT-HI), often have specific

guidelines for how the tester is to present the instruction and items. Testers should be familiar with these requirements.

8) Make sure that the test is valid for the purpose for which it is being used. For example, the Peabody Picture Vocabulary Test (PPVT) gives a score in terms of intelligence quotient (IQ), but does not really measure general intelligence. However, it is a good test for measuring receptive vocabulary.

9) Some tests may actually measure a child's disability rather than his/her ability. For example, an IQ test that relies heavily on verbal skill would not be appropriate for many deaf children. Any timed test would not be appropriate for a child with motor dysfunction.

10) Some tests have limitations on how often they can be given. This is done to eliminate learning that may have occurred from repeated administrations. Also, the measurement error inherent within a test may be greater that the change in learning if the child takes the test too frequently.

11) Tests only measure part of a child's ability at a certain point in time. Usually, they are only useful if other tests are available to offer comparisons. This will provide some basis for measuring reliability of the test results and the child's progress.

12) Many tests suggest that they measure the same things, such as reading comprehension, but the manner in which this is assessed may pose limitations on what can be inferred from the results. For instance, a multipie choice testing design may not provide as much insight into how a child makes inferences from reading a paragraph as a test that presents a paragraph and asks the child to develop his/her own answers.

THE STAFFING PROCESS -- IDENTIFYING NEEDS

Staffings provide an opportunity for everyone who has a professional involvement with a child to get together and discuss how the child is doing and what needs to be done for or with the child. Children should be staffed at least every three years as part of the reevaluation process, but preferably every year, particularly when they are young, multiply handicapped, or have other factors that put them at risk. A process should be in place for calling staffings. Each child should be regularly scheduled but there should be flexibility within the schedule for emergency staffings.

The following persons should be invited to the meeting if they have interactions with the child:

- supervisor

- teacher(s)
- teaching assistant(s)
- social worker
- speech/language pathologist
- audiologist
- occupational therapist
- physical therapist
- dormitory counselor(s)
- volunteers
- psychologist
- behavior specialist
- guidance counselor
- parent(s)
- medical personnel
- others at your discretion
- other specialists who may have expertise in areas of need for the child also may be invited to help with brainstorming.

One of these individuals should "chair" the meeting. This person, preferably, should be the child's case worker, someone who has the most contact with the child, or someone who has been assigned to monitor this process for all of the children in the school or department. One person should be assigned to take notes at the staffing and circulate the summary to the other participants. This is particularly important if persons have been assigned to follow through with actions.

Staffings should follow prescribed formats so that the needs of the child are comprehensively addressed:

- Identification of the purpose of the staffing (e.g., time to arrange for triennial review, crisis with the child, review of new assessments, etc.);
- Delineation of what you want to see happen as a consequence of this staffing (e.g., identification of all assessments that need to be performed on the child in order to complete the triennial, a behavioral intervention plan, etc.);
- Summaries of achievement and behavioral status by those working directly with the child (e.g., report cards, formal and informal testing, summaries of how the child acts -- at home, in school, in the dorm, in unstructured/structured situations etc.);
- Review of current assessments (both formal and informal);
- Identification of strengths (i.e., areas in which the child "shines" -- these can be relative strengths);
- Identification of weaknesses (i.e., areas in which the child has academic or social/emotional deficiencies);
- Identification of further assessments needed (i.e., formal and informal

assessments that should be performed because previous ones are too old or because none have been done);

- Identification of other actions that need to be taken on the child's behalf (e.g., meetings with parents, obtaining privately done assessments, collecting or organizing files);
- Assignment of individuals to follow up on assessments and other actions (i.e., who will coordinate or do each assessment or action and how will this be reported);
- Date and/or process for reviewing assessments/actions (i.e., followup on what information is obtained).

Staffing reports should contain:

- Why the staffing was called;
- When and where it was held;
- Who attended;
- Summaries of assessments and reports;
- Minutes of the meeting;
- Assessments/actions proposed;
- Assignments for followups;
- The date for reconvening on this child's behalf.

STAFFING SUMMARY REPORT

Child's Name _____

REASON FOR STAFFING:

_____

_____

_____

_____

Date of Staffing: _____ **Location of Meeting:** _____

STAFFING PARTICIPANTS:

NAME	POSITION
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

SUMMARIES OF ASSESSMENTS AND REPORTS:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

MINUTES OF THE MEETING:

ASSESSMENTS/ACTIONS:

ASSIGNMENTS FOR FOLLOW-UPS:

DATE FOR RECONVENING:

OBSERVATION

Observation is a very useful, powerful assessment tool for teachers. A well documented, objective observation can demonstrate critical information about a student's performance.

Observation is also one of the most misused types of assessment because it requires the reporter to be **concrete** and **objective**. Human beings are not naturally concrete or objective. We constantly interpret what we see, hear, smell, and touch, colored by our own perceptions and frames of reference.

Defining a Behavior

When a teacher is observing a student, the purpose of the observation is to document in **measurable terms** the student's **level of performance** in a specific area or his/her **behavior**.

In order to assess a behavior it must be defined in such a way so that it can be measured.
"Johnny's social skills" is too generic of a description for us to measure.

- What exactly is meant by social skills? What social skills do we want to evaluate? His ability to discuss baseball scores? How consistent he is with giving eye contact when interacting with someone else?
- What social skill(s) is Johnny missing? What skills does he already have?
- Are our expectations the same as we have for others? What criteria are being used -- Ann Landers, Miss Manners, the Simpsons?
- How will you demonstrate that Johnny's social skills have improved or deteriorated?

"John's ability to say 'hello' to his teacher every morning" is a description of a behavior that will be easier for us to measure.

Precise observations and measurements of behavior will enable the teacher to determine what skills a student has, does not have, and the best method to teach a skill to that child.

Objective observations can be used to:

- ascertain a **baseline** for future measurement of growth;
- determine a student's current **performance level**;
- **monitor growth** on a periodic basis to document learning;
- **evaluate** when instruction is complete.

(Data collection methods of quantifying behaviors can be found under "Behavior Management.")

Anecdotal Reports are another type of observation that can provide a complete description of a student's behavior in a particular environment. In this case, a target behavior is not defined prior to the report; rather, following the report and analysis, a target behavior will be identified as the source of some behavior/academic difficulty. This data collection method results in a written description of almost everything that happened during a certain time period.

Anecdotal reports are very helpful in determining the origin of problematic situations. However, at the same time this type of assessment can be easily misused. In order to report accurately and objectively it is important to remember only to describe the events in tangible, concrete terms. Your interpretations or feelings about a certain event are important but never report that as fact. One of the most dangerous traps an anecdotal reporter can fall into is to try to summarize an event, thereby changing the event. **REPORT EVERYTHING YOU SEE AND HEAR STEP BY STEP.**

To complete an accurate anecdotal report, some simple steps should be followed:

- Before you begin reporting, always record the setting your report reflects, the people in the setting and who they are, and the activity in progress.
- Write down **everything** the target student(s) says and does, noting to whom or what.
- Write down **everything** said and done to the target student(s), noting by whom.
- Always delineate statements that report what is actually occurring from your perceptions or conjectures regarding cause or reaction.
- Always furnish time references so that the duration of certain behaviors or interactions is known.

DETERMINATION OF NEEDS

Based on the results of the evaluations performed, a determination will be made by the School-Based Committee as to whether or not a child qualifies for special education services. A child with a disability will only qualify for special education services if the child's disability impacts on his/her educational progress. As previously noted, federal law stipulates the types of disabilities that may qualify a child to receive special education:

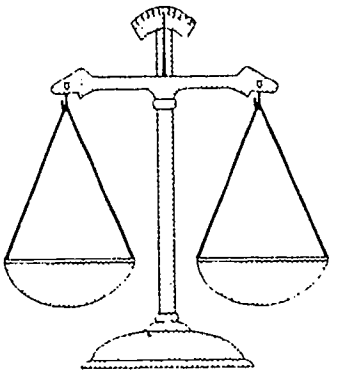
- deaf
- deaf-blind
- hard of hearing
- mentally retarded
- multihandicapped
- other health impaired (e.g., heart condition, leukemia)
- orthopedically handicapped
- seriously emotionally disturbed
- specific learning disabled
- speech impaired
- visually impaired
- autism
- traumatic brain injury

Federal law further stipulates provision of services to:

1) Any child with a disability receiving special education services through a publicly supported agency;

2) Any child with a disability placed in or referred to a nonpublic school or facility by a public agency;

3) Any child with a disability in parochial or other private schools who receives special education or related services through a public agency.



Parts of an IEP

Once a child has been identified under one or several of these categories, his/her special education and related services needs must be determined. The document that details these needs is called an Individualized Education Program (IEP). The document is developed at a meeting.

The IEP should include:

1) A statement of the child's present levels of educational performance;

2) Annual instructional goals and short term objectives;

3) Appropriate objective criteria and evaluation procedures and schedules for determining, on at least an annual basis, whether the short term instructional objectives are being achieved;

4) A statement of the specific special education and related services to be provided to the child;

5) The extent to which the child will be able to participate in regular educational programs;

6) The projected dates for initiation of services and the anticipated duration of the services.

7) For children 16 years old and up, goals and objectives for transition services.

Who Should be at the IEP Meeting?

1) The child's teacher;

2) A representative of the public agency, other than the child's teacher, who is qualified to provide, or supervise the provision of, special education;

3) One or both of the child's parents, parent surrogates, or guardians;

4) Where appropriate, the child him/herself;

5) Other individuals at the discretion of the parent or agency;

6) *For handicapped children who have been evaluated for the first time:

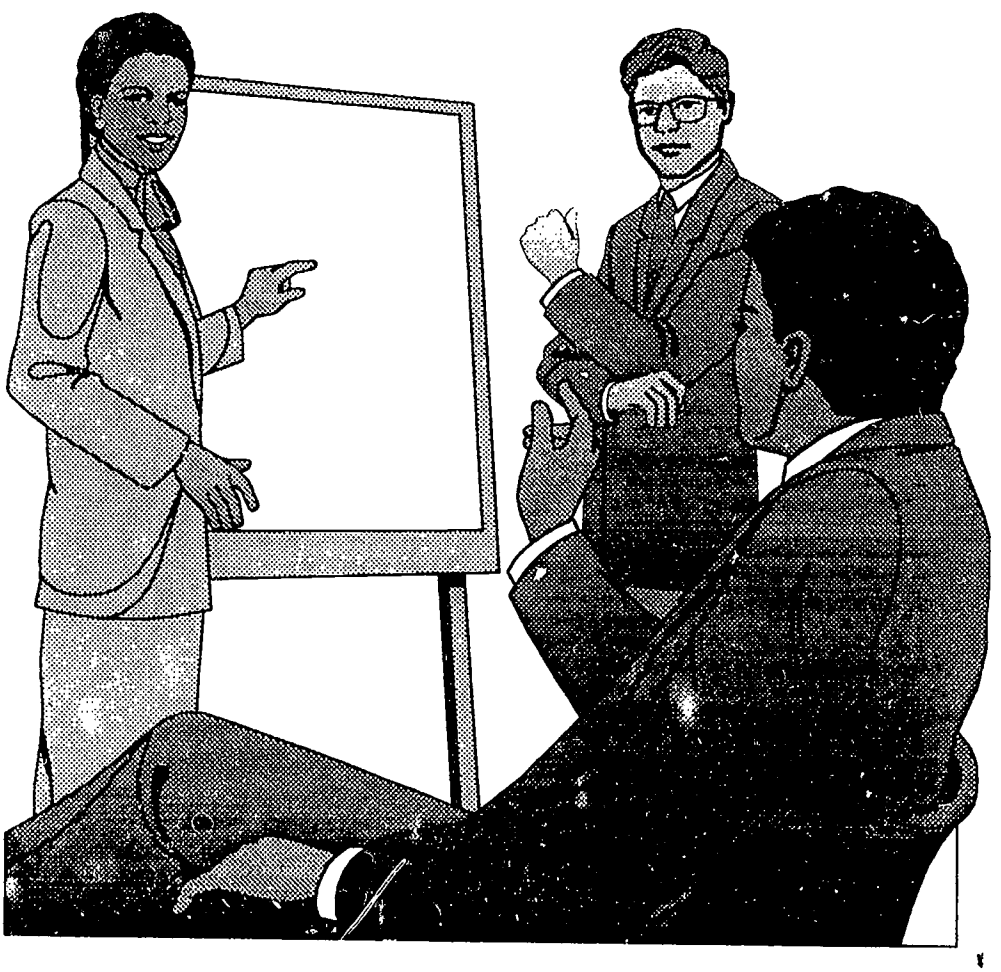
   a) A member of the evaluation team; or
   b) Any representative of the public agency (including the child's teacher) or other participant at the meeting who is knowledgeable about the evalua-

tions used with the child and the results of these evaluations.

7) For children ages 16 and up:

a) a representative of the public agency responsible for providing or supervising the provision of transition services;

b) if appropriate, a representative of each participating agency responsible for providing or paying for needed transition services.



Parent Participation

Public agencies must take steps to assure that parents or guardians have the opportunity to participate in the IEP process by:

1) Notifying them of the meeting early enough to insure that they will have the opportunity to attend;

2) Scheduling the meeting at a mutually agreed upon time and place;

3) Using alternative participation means, such telephone conference calls;

4) Obtaining interpreters for those who are deaf or do not speak English.

Upon request the agency must provide parents with a copy of the IEP.

If the agency in unable to obtain the parents' participation, their efforts must be documented (e.g., phone calls, letters, records of visits to the home or place of employment).

ADMINISTRATIVE PLACEMENT COMMITTEE

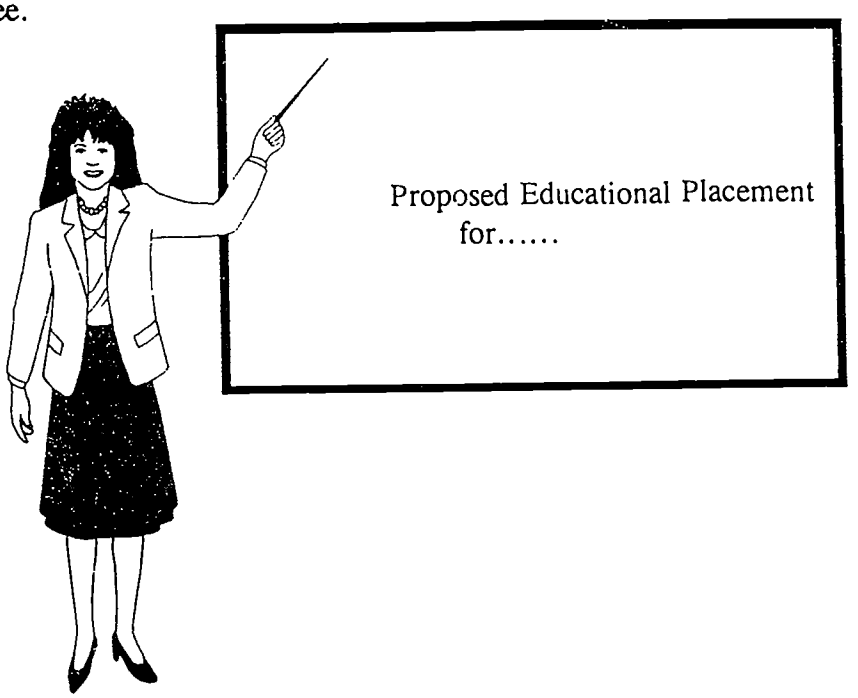
(Note: For preschool children, the functions of the School-Based Committee and the Administrative Placement Committee have been combined and are described in the section entitled, "Preschool Transition/Placement Committee.")

The function of the Administrative Placement Committee is to make all final decisions regarding the classification of students as special needs based on evaluation results and placement of students in programs for exceptional children.

The School-Based Committee, Individualized Education Program Committee, Group Education Program Committee, Multidisciplinary Team, and Administrative Placement Committee may be combined into one committee or a combination of committees to meet the needs of the particular local educational agency. To combine committees, local educational agencies must submit the procedures to the Division of Exceptional Children's Services for written approval. In combining the committees, local educational agencies must meet the requirements under Section .1512 of State law. If the child is being identified as specific learning disabled, there are further requirements to which the committee must adhere. (See Section .1509(6).)

Most likely committees will be combined if there is a strong likelihood that the student will be

placed in his/her current or neighborhood school. If an out-of-school, district, or state placement appears likely, members of the school district central office will probably participate on the committee.



The Administrative Placement Committee is responsible for:

1) Receiving and reviewing information collected and considered by the School-Based Committee in formulating the recommendation regarding classification of a student as special needs and placement of a student in a special program.

2) Reviewing the recommendation of the School-Based Committee regarding classification of a student in a special program.

3) Ensuring compliance with due process procedures concerning the identification and placement of a student in a program for exceptional children. Due process procedures must be provided in writing to parents.

4) Reviewing referrals of students from other agencies or of the educational agency itself and making the final decision concerning classification of a student as special needs and placement. For a child not presently served in the local educational agency, the committee might wish to refer the child to a School-Based Committee for the development of one of three documents: a) an individualized education program (IEP) if the child has a disability, b) a group education program for academically gifted children, or c) a written educational program if the student is pregnant. If a child is screened or evaluated by the staff of the Department of Human Resources, this information should be presented to the administrative unit where the student resides for the

determination of appropriate classification as a student with special needs and placement.

5) Conferring with appropriate Department of Human Resources staff for the development of an IEP for children with disabilities, of a group education program for children who are academically gifted, or of a written educational program for children who are pregnant and determination of appropriate placement if it is determined by the school administrative unit that a child should receive a free, appropriate public education in a program operated by the Department of Human Resources. If the child is released from a program operated by the Department of Corrections or the Department of Human Resources, staff from the program may confer with the administrative unit for development of the appropriate document and determination of an appropriate placement. These documents will follow the child from one placement to another and may be challenged at any time under due process provisions.

6) Making financial arrangements with other local educational agencies, other public agencies, or private schools.

7) If the placement decision is for placement outside the local education agency, seeing that an appropriate IEP for children with disabilities, group education program for children who are academically gifted, or written educational program for children who are pregnant is developed in conjunction with the school or program where the child is being placed.

8) If the Administrative Placement Committee determines that the IEP, group education program, or written education program is not adequate and does not define an appropriate education for the child, either reconvening the committee or asking the parent to join the Administrative Placement Committee and actively changing the document. The parent must be informed that he/she has all rights to participate in changing the document and to request a hearing. After the change, a new consent form must be signed by the parent if it is an initial placement.

9) Ensuring that an eligible child with special needs is placed in the appropriate special program within 90 calendar days of receipt of a referral, unless the parent refuses to give consent for evaluation or placement.

Composition -- One member of the Administrative Placement Committee must be someone from the central office of the local educational agency who has been designated by the superintendent as eligible to commit financial or other resources.

Other members of the committee should be selected from the following and must include at least one member who is knowledgeable about the child:

1) Exceptional Children Program Administrator
2) Chairperson of the appropriate School-Based Committee
3) Superintendent or designee
4) General supervisor
5) School psychologist
6) Other appropriate personnel
7) If a child is referred by another agency, an appropriate representative from that agency shall provide input for appropriate placement.

*The Administrative Placement Committee should have at least one member of the same race and sex as the student being considered for special education placement.

ENTRANCE/PLACEMENT CRITERIA

Once a child's needs have been defined by the IEP, a determination must be made as to what placement can implement it. Placement is determined by the Administrative Placement Committee. The Administrative Placement Committee will review all the information collected and the placement recommendation made by the School-Based Committee.

All placement decisions must be put in writing for parents. This notice should include the name and description of the placement, why this placement is being recommended, other alternatives (if any) considered and why they were rejected, evaluations used as the basis for this decision and a description of these evaluations. If placement in a program for children with severe disabilities is recommended, the parents are also 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 as well. If placement in a program for children with severe disabilities is not recommended, the parents are given a copy of the appeals procedure along with the decision not to place.

In making a placement decision, the public agency should:

1) Draw upon information from a variety of sources, including aptitude and achievement tests, teacher recommendations, physical condition, social or cultural background, and adaptive behavior;

2) Ensure that all information considered is documented;

3) Ensure that the placement decision is made by a group of persons, including persons knowledgeable about the child, the meaning of the evaluation data, and the placement options;

4) Ensure that the placement decision is made in conformity with the least restrictive environment rules;

5) Ensure that the placement can implement the child's IEP.

If a placement is being recommended for a child, and his/her parent disagrees with this placement, the child cannot be moved from his/her current placement until there is a resolution to the disagreement.

LEAST RESTRICTIVE ENVIRONMENT (LRE)

As you may recall, two of the primary provisions of the EHA involve building assurances that children with disabilities have opportunities to receive their education with children who do not have disabilities. Removal from a "normalized environment" should occur only when the nature or severity of the disability is such that education in regular classes, with the use of supplementary aids and services, cannot be achieved satisfactorily. The more removed a child's placement is from the "mainstream," the more restrictive it is considered to be. Thus, in searching for an appropriate placement for an individual child, it is incumbent upon those making the placement to find one that provides the least restrictive environment (LRE) from which the child can receive benefit.

Federal regulations go on to say that each public agency shall ensure that each disabled child's educational placement:

1) Is determined at least annually;

2) Is based on his/her IEP;

3) Is as close as possible to the child's home.

Considerations When Applying LRE Principles

Determining what constitutes the least restrictive environment for a child's educational well-being is a complex process. There are a number of factors that should be considered:

1) A placement should be capable of implementing a child's IEP.

If two placements are capable of implementing a child's IEP, and one is less restrictive than another, that one should be selected.

2) Placement should be made on the basis of the individual student's educational needs as stated in the IEP. The following conditions are <u>not</u> acceptable reasons for determining placement:

   a) category of handicapping condition,
   b) configuration of the service delivery system,
   c) availability of educational or related services,
   d) availability of space,
   e) curriculum content or methods of curriculum delivery, or
   f) administrative convenience.

3) Placement is made with provisions for participation in non-academic and extra-curricular activities with students in regular education to the maximum extent appropriate to the needs of the student, including, but not limited to, meals, recess periods, special interest groups or clubs, student employment, and work-study programs, etc.

4) When a student with a handicap is placed in other than a regular classroom, a chronologically age appropriate placement should be provided.

5) Placement is made so students with disabilities have available the variety of educational programs and services that are available to students without disabilities (e.g., art, music, physical education, vocational education). Adaptive physical education must be provided if specified on a student's IEP.

6) Sometimes the value of placing a child in a less restrictive environment will be more important than implementing aspects of a child's IEP. For example, if a child's IEP stipulates that he is to receive occupational therapy (OT) three times a week, this service in this quantity may only be available in a residential setting far from the child's home. The decision may be made to place him in a day program near his home that can offer OT two times a week instead because being able to go home every night may be more important than that extra session per week of OT.

7) There is a burden placed upon school systems to develop programs within less restrictive settings.

8) Distance from home should be heavily considered. If a placement is required in a school other than the one in the home attendance area, placement must be made in the school nearest the child's home where he/she has the greatest opportunity to interact with students in regular education.

9) A child's activities at home and in the community may be indicative of his/her LRE capabilities and needs. For example, if a child with severe disabilities is involved with aquatics, cub scouts, and church in the community, it may be unreasonable to send him far away where these community supports may not be available.

10) Harmful sociological and psychological effects on the child should be considered. For example, a child with a hearing impairment may feel isolated if he/she is in a school where no one knows sign language and can communicate with him/her.

11) If a child is to be mainstreamed for several classes, the classes should be selected to conform with the strengths of the child and not be hampered by such factors as, availability of an interpreter, scheduling convenience, and availability of other similarly disabled children to share the experience.

12) In order to be placed in a residential program, there should be demonstration of at least one of the following:

a) The child cannot carry over information from classroom day to classroom day without specialized assistance that cannot be provided at home;

b) The child needs instruction in an area that is unique to the evening hours (e.g., self-help skills related to bedtime);

c) That circumstances peculiar to the home or neighborhood environment would have a detrimental impact on the child's ability to learn and retain information.

INCLUSIVE EDUCATION

Students with disabilities have always been educated with students without disabilities. Historically, such students have been those with mild disabilities. Those students with moderate to severe disabilities have traditionally been educated in settings physically and socially isolated from their age peers without disabilities. During the past several years, parents and teachers have advocated to include students with moderate to severe disabilities' in general education settings within their neighborhood schools.

Some school systems in North Carolina have moved toward inclusive education, and many others have expressed an interest in doing so. Inclusive education is not a mandate for students with disabilities. The mandate is to educate students in the least restrictive

environment: that is, to the maximum extent appropriate, students with special education needs are to be educated with students without disabilities. (See Section .1515, Procedures Governing Programs and Services for Children with Special Needs.)

To assist the Exceptional Children Support Team give guidance to school systems, a study team was constituted in 1992 to examine issues and practices of inclusion. The study team developed a definition of the term and identified five principles that are considered important in its implementation. A definition and principles document was presented to the Exceptional Children Support Team by the study team in December, 1993, with the recommendation that schools in North Carolina appropriately implement inclusion programs for students with disabilities in accordance with the definitions and provisions of the document. The definition and principles of the study team are as follows:

Definition of Inclusion.. Inclusion is the education of each child in the school community in age appropriate general education settings with appropriate supportive services.

Principles for Inclusion. Implementation of inclusion requires thoughtful planning and discussion among all education personnel, parents and interested community members. Planning must address staff training, parent involvement, resource expansion and re-deployment, and consideration of a variety of inclusive models. Further, thoughtful deliberation must be given to addressing the unique needs of students with disabilities. To implement inclusion we (the study team) recommend the following principles be followed:

1. Special education services and supports for students with disabilities are provided in the general education classroom.

2. Students with disabilities receive their education in the school attendance area associated with their place of residence. School districts maintain a wide array of services and supports to provide for the needs of all students.

3. Students with disabilities are placed in general education settings at a rate consistent with the incidence rate of disabilities within the population of the school attendance area.

4. General education personnel and exceptional education personnel work collaboratively to provide appropriate services to all children. Services provided to students with disabilities are prescribed in their IEPs.

5. Services and supports are designed to build upon the strengths displayed by each student, including students with disabilities.

For additional information, please contact the Exceptional Children Support Team of the Department of Public Instruction, 301 North Wilmington Street, Raleigh, NC 27601-2825.

April 28, 1994

ENTRANCE/EXIT

There are two types of entrance/exit criteria to be considered in programming for students with severe disabilities -- criteria that qualify students to be considered for or released from special education services, and criteria for acceptance/exit from specific programs. As has previously been discussed, a student's disability must have an impact on his/her educational performance in order for him/her to receive special education services. For example, you may have a student with spina bifida who is in a wheelchair who is doing well academically in class. This student may qualify for some special services or accommodations through Section 504 of the Rehabilitation Act of 1973, that is, he/she is an "otherwise qualified individual." The phrase "otherwise qualified individual" means that notwithstanding the student's disability, he/she is qualified to receive an education. In the United States you are qualified to get an education if you are 3 - 18 years of age. Thus, this law says that such persons must be accommodated to benefit from services available to others. This type of student will not have an IEP and will not receive special education services, but will have accommodations, such as ramps into the building and assistance with clean intermittent catheterization (CIC).

Individual programs or facilities may have entrance or exit criteria for a student seeking their services. This is done because these programs want to set up guidelines to assure that children who are referred to them can receive the appropriate services there. For example, a school for the blind may require that students being accepted meet definitions of legal blindness. They may feel that it would not be appropriate for a child whose vision is normal to be educated methodologically as if he/she could not see.

Programs for children with severe emotional problems typically have exit criteria which assure that those who have benefitted from their services to the extent where they are able to behave appropriately with nondisabled peers will have the opportunity to do so.

In identifying a placement for a student with severe disabilities, assessment reports,

multidisciplinary team (MDT) reports, and particularly individualized education programs (IEPs) should be consulted. Careful scrutiny should be given as to whether or not the program you are considering for the student has the qualified staff, materials, equipment, building accessibility, and philosophy/attitude to implement the student's IEP. For example, if you have a student who has a hearing impairment, uses a wheelchair, functions at a very low intellectual level, and is 17 years old, you probably want to identify a program that is wheelchair accessible, has audiological, physical therapy, occupational therapy, and speech/language services, offers vocational training, evidences good coordination with adult services, has staff that can use nonverbal forms of communication, and has many manipulative and visually stimulating materials. Identifying an appropriate placement is critical to assuring that a student's IEP will be fully implemented.

THE INSTRUCTIONAL PROGRAM

Based on the fact that children with severe disabilities do not present a uniform profile, a very individualized approach must be taken with each one. This approach must take into account such factors as intellectual potential, physical capacity in such areas as vision, hearing, and motor, functional capabilities, medical interventions, and behavior. Typically, children classified as severely/profoundly disabled have difficulty learning because of the extent to which the constellation of their disabilities interferes with their ability to learn. The limitations imposed by their disabilities may cause them to have limited exposure to the environment, thus curtailing the experiences that people typically utilize to learn. They also may have limited potential to process the information that they do receive due to mental retardation or faulty neurological systems that "scramble" information coming into the brain or being processed back out (i.e., expressed by the child). Because of these limitations children may appear as having unequal development and huge deficits in basic skill areas.

An instructional program for a child with severe disabilities must present information and skills developmentally, sequentially, intentionally, and in a highly structured manner. It cannot be assumed that the child will understand and functionally incorporate information merely through exposure. Each task presented must be analyzed for its relation to previous and future tasks taught, broken down into digestible and achievable components, presented through modalities (e.g., visually, auditorially, kinesthetically) that assure or maximize the child's receptive understanding, provide a means of allowing the child to express mastery, and utilize materials that are functionally natural and stimulating.

A comprehensive instructional program should cover all instructional areas that will assure that the student's potential to be a contributing member of society is maximized. The goal is to make the child as independent as possible and to be an accepted member of his/her living and working group. Thus, most instruction covers communication, self-help, motor, prevocational or vocational, basic academic, and social/emotional/behavioral skills.

HOW THE IEP RELATES TO INSTRUCTION

As previously discussed, an IEP is a document that defines the total service plan for a student. The part of the IEP that relates directly to instruction is the goals and objectives. Goals are long range (generally one year) intentions of student achievement. An example of a goal for a child with severe disabilities might be:

John Smith will independently toilet himself.

or, *Mary Jones will work cooperatively in a group situation.*

In establishing goals for children with severe disabilities, the following should be considered:

1. The student's past and projected rate of development compared with long-range plans for his/her future;

2. The presenting physical and communicative capabilities of the student;

3. Inappropriate behaviors that must be brought under control because they are interfering with learning;

4. Skills the student lacks for appropriate functioning in the school, home, and social environments;

5. The amount of instructional time available to the student within the school day and within the total school experience.

6. The prerequisites for acquiring new skills.

7. The functional utility of the skills (what additional skills may be built upon these).

8. The availability of specialized materials, equipment, or resource personnel (e.g., speech/language therapist, remedial reading teacher).

The IEP also should contain objectives which directly relate to goals. An objective is a statement that communicates a proposed change in student behavior. It describes a level of performance and serves as a basis for evaluation. It describes what the learner will be able to do after completion of instruction, not what you will do with the learner. Thus, an objective usually begins with the name of the student.

An objective is always written in performance terms that are observable and measurable. Examples of verbs that would be appropriate to use in objectives are:

ride	deliver	eat	complete	say
throw	read	point to	sort	greet
cut	put on	wash	place	hammer

Verbs that would not be appropriate to use in that they can not be measured alone are:

think about	understand	feel	enjoy
evaluate	accept	tolerate	allow
sense	decide	relate to	know

Objectives should have additional components:

1) Minimum Acceptable Performance Standards

Once you have described in performance terms what it is you want the learner to do, the next task is to determine how well you want him/her to be able to do it. This can be accomplished by describing the minimal acceptable performance within each objective statement.

These criteria provide each instructor a performance standard against which the instructional strategies can be tested and refined. They also can facilitate the individualized instructional process.

2) Stated Performance Standards

The most common way of indicating acceptable performance is by simply stating the minimal acceptable standards in the objective statement. Thus, objectives could then be written as follows:

Given four graduated cylinders, Johnnie will place them all in the correct holes in the puzzle block without error three out of five times.

Susie will get in the bath tub without tantrumming three days in a row.

3) How to Quantify Data

Objectives should be written in a form that will permit you to evaluate the level of performance. Preferably, it should be written so that you can take data as instruction proceeds to monitor a child's progress. This is especially important with children with severe disabilities because progress may be extremely slow. Without establishing a concrete way to monitor growth, you may be unaware that the child changed at all.

There are different ways that the criteria for successful performance can be quantified:

a) **Past period** -- number of times a desired behavior occurs since a previous date. (e.g., *Billy will sit quietly through three movies after the unit on behaving in public is completed.*)

b) **Units processed** -- number of times a desired behavior occurs or percentage of task completed after or during a set time period. (e.g., *Tommy will pull the switch on his activity center three times during a five minute period.*)

c) **Utilization** -- percentage of utilization of space, resources, etc. (e.g., *The student will negotiate 50% of the classroom obstacle course without prompting.*)

d) **Deviation** -- amount above or below a set standard. (e.g., *Yvonne will accomplish 3 out of 5 of the instructional units from the first grade curriculum.*)

e) **Outside data** -- deviation from national norms, etc. (e.g., *Edith will attain a 1.3 grade level on the Primary version of the SAT.*)

f) **End form** -- the desired behavior will occur at the end of a certain period of time. (e.g., *Pat will play cooperatively with another student by May 1st.*)

g) **Beginning form** -- the desired behavior will occur beginning on a certain date. (e.g., *Jane will begin taking Ritalin independently on February 15th.*)

h) **During form** -- the desired behavior occurs during a specific period of time. (e.g., *Chris will generate five novel sentences per day during the second marking period.*)

i) **Specific form** -- the desired behavior will occur on or by a particular date. (e.g., *Alan will refrain from jumping out of his seat during Parents' Day.*)

SETTING GOALS AND OBJECTIVES

Educational goals provide the framework for the academic year. These goals should evolve from an accumulation of evaluation information and should be correlated with curriculum planning. Goals define the anticipated academic and social development for which the school is taking responsibility. During goal selection, educators estimate what proportion of the student's educational potential is to be developed within the next academic year. Thus, educational goals (long-term objectives) are statements of program intent whereas behavioral objectives (short-term or instructional objectives) are statements of actual classroom instructional intent.

CURRICULUM CONTENT

A multidisciplinary team (MDT) usually is responsible for setting goals for students who need special services and have been formally referred. When gathering data upon which to base a student's educational program, the MDT will review the results of various evaluations. These evaluations represent information that has been generated to determine the student's current level of functioning.

The instructional program for a child with severe disabilities will in some ways be the same and in other ways will be quite different from that of students without disabilities. Choosing or modifying a curriculum for a particular student will be dependent upon his/her individual needs.

There should be a correlation between what appears on an individual child's IEP and the instructional curriculum offered at the school. An instructional curriculum should be sequential, developmental, and build one skill upon another. If a child has been appropriately placed in a program, the curriculum offered by the program should show a lot of congruence with his/her IEP. Thus, to a large extent, it should be possible to extract goals and objectives for the child from the curriculum. For example, if a child has needs in independent living related to hair care, the curriculum should cover instruction in personal care.

There are many curriculum guides on the market today. (See Appendix B.) The following are desirable attributes of a curriculum for children with severe disabilities: 1) The skills and the capabilities of the young child with disabilities are consistent with the activities presented; 2) Activities should be used according to developmental age, not chronological age although appear chronologically appropriate; 3) The format of the activities contained in the guide should include:

- Developmental age range;
- Purpose or objective;
- Materials and equipment;
- Directions and/or procedures;
- Evaluation for completed task;
- Variation suggestions;
- Ways to adapt activities according to specific handicaps;
- Bibliography of additional sources.

Most programs for children with severe disabilities offer instruction in the following areas:

Language and Communication

One of the major priorities of a program for children with severe disabilities is to

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

Many individuals with severe disabilities are nonverbal or have inconsistent verbalizations which interfere with their overall communication abilities in their environments. Due to limited verbal communication skills, those who come in contact with these individuals will often mistake these limitations for decreased cognitive functioning. Today most of these severely disabled individuals are mainstreamed into the public school settings or other day settings, and are introduced earlier to augmentative communication systems so that they may reach their functional communication potential.

Most likely, there will be a two-pronged approach to enhancing a child's communication -- 1) increase his/her facility with using a standard language like English or American Sign Language; 2) identify a means (e.g., speech, manual communication, computer, communication board) for the child to express this language and increase his/her ability to use this means.

The child's potential to learn language and to receive and use it through different means should be assessed during the evaluation process in both clinical and natural settings. Identification of instructional goals and objectives should be a joint effort with the speech/language pathologist and sometimes with the occupational and/or physical therapists if the child has motoric concerns.

Ultimately, implementation of a communication system and language development will rest with the classroom teacher. Whether it is through the use of signs, a communication board, object board, or a more advanced technology, a child with severe disabilities can usually learn to make choices and have some control over his/her life.

Once a communication system has been identified, it is important for it to be used consistently everywhere the child goes -- home, the cottage, physical education, in the community, etc.

Motor Skills

Many children with severe disabilities have mobility problems that seriously reduce independence and chances for maximum interaction with the environment. Motor development is a prerequisite for other skill areas, like sign language. A child may show difficulties with motor skills because of actual physical limitations (e.g., cerebral palsy, muscular dystrophy), because of sensory deprivation that limits his/her understanding of the environment (e.g., visual impairment), or because of neurological damage (e.g., learning disability, sensory integration).

Motor skills are typically evaluated by physicians, physical therapists, occupational therapists, and physical education teachers. Their guidance should be used in formulating the IEP and implementing programming in the classroom.

Gross motor assessment requires an in-depth analysis of various body movements (e.g., head control, sitting, crawling, and walking) as well as possible use of adaptive equipment. If this information is not already available, it is strongly recommended that a physical therapist be included in the assessment to ensure that information obtained is valid.

Fine motor assessment, done by an occupational therapist, evaluates fine motor control (e.g., hands, eye and hand, and hands together) and is directly related to the success a person with severe disabilities will have in other areas, such as self-help/daily living skills, communication, choice-making, and recreation/leisure time activities.

Sensory integration assessment looks at a child's ability to understand information received through the sensory pathways and blend information coming through all of these pathways into a cohesive whole. The curriculum for children and infants with severe disabilities will include sensory stimulation to enhance body awareness through tactile stimulation and include opportunities for stimulation of the senses through visual, auditory, tactual, kinesthetic, vestibular, etc. modes. Motor limitations and sequencing of movement will also be stressed.

For best results a motor program should include two major components. One is the specific exercise program. The other is the manner in which the child is handled and positioned throughout the day -- at home as well as in school. Incorporating motor goals into the daily routine speeds progress and forestalls or prevents the development of physical deformities. Neuromuscular disorders are not curable conditions, and the more severely a child is involved, the poorer are the odds for smooth motor functioning. It remains true, however, that postures and movements are established through repetition.

If a child practices abnormal patterns, these quickly become habitual and difficult to change. For this reason, it is important that motor experiences be as normal as possible.

The usual procedure for motor training is:

1) Based on the motor evaluation, decide on the activity you want the child to do;
2) Get the child's muscle tone to an appropriate state through handling and positioning;
3) Have the child perform and repeat the activity;
4) Gradually make it more challenging for the child to perform the activity by changing position, placing objects higher, etc.

Two of the most commonly employed programs with children with limited cognitive potential are movement theory and motor circuits, developed by J. Van Dijk. The movement theory involves the assertion that patterns in early movement are necessary precursors to cognitive development. Motor theory training follows the order of:

resonance -- teacher imitates child's movements
coactive movement -- teacher and student perform movement together
nonrepresentational reference -- imitation, imagery, and pantomiming
imitation -- of people, objects, and pictures, first at a close range and then further distances
natural gestures -- gestures created by child as extensions of movement in related activity
naming -- signs are attached to objects and experiences to develop a formal language system.

Motor circuits use obstacle courses to teach spatial awareness and sequential memory. The goal is to get the child to move from one obstacle to another independently. Obstacles can be furniture, jungle gyms, climbing stairs, or people and are geared to a child's physical characteristics.

Activities of Daily Living

Activities of daily living include the basic self-help skills as well as home living skills 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. Children with severe disabilities, 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 therapists, occupational therapists, speech/language therapists and related personnel.

The ability to care for oneself independently is often taken for granted. Independent grooming, eating, dressing, and toileting are presumed to be easily acquired skills at a young age. Proficiency in these skills is not easily attained for the persons with severe disabilities. In fact, for many students these skills alone are major instructional objectives for long time periods. Yet, for independence in domestic and community environments, a high degree of ability must be achieved in this area.

Social Skills

Learning to engage in reciprocal social interactions with other people is a critical aspect of development. Many children with severe disabilities are very delayed in their social skills development.

The acquisition of these social skills is important for all students but especially for the older ones. 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 for 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. Typically, assessment in this area is done by the classroom teacher, sometimes with the assistance of a psychologist, social worker, behavior specialist, or counselor. Developmental checklists are used to identify and define behaviors and determine their appropriateness both socially and developmentally.

Cognitive Skills

Many children with severe disabilities lack thinking skills that most of us take for granted. Specific cognitive skills are essential prerequisites for many types of learning. For example, a child must be able to recognize symbols, be able to imitate, and understand position in space in order to use sign language. Types of cognitive skills that children with severe disabilities may lack include, form constancy, cause and effect, attention, figure/ground discrimination, and whole/part relationships.

Before teaching a new skill, it is important to make sure that the child has the prerequisite cognitive skills to do the task. For example, if a child is sorting during a vocational task, he/she might need to know concepts for same and different, size, color, texture, etc. Cognitive skills may need to be specifically taught and definitely should be considered before a new skill is attempted.

RELATED SERVICES

As previously mentioned, there are a number of related services that are guaranteed to children with disabilities under special education law. States may elect to offer additional ones at their discretion. Many of these services have critical roles in the education of children with severe disabilities. These service providers will work with you as a team to provide you with guidance on what the child can, cannot, and should be able to do. Similarly, they will reinforce your instruction by working on specific skills. For example, a speech/language therapist may work with a child on the speech sounds of vocabulary words being learned in the classroom.

Related services staff may work with children during the assessment process, for pull-out (out of the classroom) services, in an integrated model (working side-by-side with the teacher), or on a consultative basis with the teacher. Certain skills may require the assistance of several related services providers. For example, speech/language therapists, occupational therapists, and teachers may need to work together on feeding programs for specific children.

The following describes different types of related services available to children with severe disabilities:

Physical Therapy is a health profession concerned with providing services to individuals with handicapping conditions resulting from prenatal causes, birth trauma, illness or injury. The purpose of physical therapy is to prevent or minimize disability, relieve pain, develop and improve motor function, control postural deviations, and establish and maintain performance within the individual's physical capabilities.

In an educational setting, physical therapy services are provided to enable a handicapped student to benefit from special and/or regular education in the least restrictive environment. Physical therapy services are directed towards the development and maintenance of an individual student's physical potential for independence in all educationally related activities. Services also are directed toward the modification and adaptation of the student's physical environment so that the student may participate to the fullest extent possible in the educational process.

The Role of the Physical Therapist with Children with Severe Disabilities

The physical therapist provides services that enable a student with severe disabilities to gain optimum benefit from an educational program and to function as independently as possible in the school and classroom's physical environment. The physical therapist provides student related services, which include assessment, treatment, and consultation as documented on the student's IEP and program related services which include the facilitation of complete program planning with educational personnel, parents, and community health professionals as appropriate for each student.

Assessment

Evaluation procedures are undertaken to determine causative factors as well as the nature, extent, and prognosis of a handicapping condition. Areas of evaluation may include:

Developmental Screenings	Sensory/Motor Development
Postural Reflex Maturation	Joint Range of Motion
Muscle Function	Balance and Equilibrium Reactions
Postural and Gait Deviations	Perceptual/Motor Development
Functional Oral/Motor Skills	Activities of Daily Living
Adaptive Equipment Needs	Architectural Environment
Student and/or Family Goals	Prosthetic and Orthotic Needs

Physical Therapy Intervention

The need for physical therapy services and the nature and extent of those services are identified in the development of the IEP by the IEP committee. Service level and frequency should be based on (1) the evaluation results (strengths and needs) of the disabled student, and (2) the professional judgement of the physical therapist and IEP committee.

Service delivery models include direct treatment and consultation or a combination of both models. Direct treatment and consultation are not always separate levels of intervention but complementary components of a comprehensive service. For example, when a therapist provides direct treatment, consultation is needed to insure integration of the skill into the educational setting. Each school system's therapist should clearly understand the types of intervention to be provided and the relationship between treatment and consultation services.

When physical therapy treatment and/or consultation are included in the IEP, the service becomes an integrated part of the student's educational plan. Teachers and therapists should work together to schedule treatment sessions as well as times for collaboration and sharing to best meet the total needs of the student.

1. Direct Treatment

   Direct treatment is a program of specific therapeutic techniques, methods or activities to prevent or remediate physical/motor disability that is identified through the assessment process. The student's disability must adversely affect educational performance and the provided treatment must be based on IEP goals and objectives. Students may receive treatment individually or in small groups. Treatment may be provided in the classroom or a separate therapy area depending on the needs of the child.

A therapist may provide direct treatment to develop a particular component of movement or to build motor skills that will enhance a student's performance. When appropriate, the emerging skill should then be incorporated into the student's daily routine in a manner that will allow the student to practice the skill in a functional situation.

2. Consultation

Consultation refers to the process that occurs when a physical therapist collaborates with educational staff or parents to create a safe environment that supports an effective educational program. Consultation includes providing general and/or specific information about the student's handicapping condition, strengths and limitations; teaching skills required for the care of the student (e.g. handling, lifting, and positioning); developing, maintaining and instructing staff and parents on use and care of adaptive and assistive devices; and developing strategies to enhance a student's performance in school settings.

Management Programs

The development and implementation of management programs represent an intense level of consultation designed specifically for one student. Management programs consist of activities and procedures prescribed and monitored by a therapist but carried out routinely by selected educational staff and/or parents. Management programs are critical supplements to a student's therapy but are not physical therapy and must not be referred to as physical therapy. Because management programs help students to generalize skills and/or to gain or maintain function, they require repetition and therefore are best performed on a frequent or routine basis. Management programs are often provided in conjunction with direct treatment programs or some direct service to plan, monitor or modify the program. Intense and regular contact by the physical therapist with the staff is required to assure quality and safety in management activities.

Note: The goals and objectives on the IEP for both direct and consultation service delivery must specify what the student will learn to do as a result of the physical therapy services.

Management Suggestions for Students with Severe Disabilities

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/her unique physical and educational needs. What works for one child is rarely appropriate for another child no matter how similar their disabilities appear.

Management includes these general principles:

- General principle for handling and positioning
- General principles for lifting and carrying
- Body mechanics for the persons lifting and carrying the child
- General principles for dressing/undressing
- General principles for feeding
- Positioning in the classroom

Occupational Therapy are services provided by a licensed occupational therapist to students with special needs when their handicapping condition adversely affects their performance in the educational setting. Occupational therapy is a health profession that utilizes the application of purposeful, goal-directed activities in the assessment and treatment of persons with disabilities. In an educational setting, occupational therapy uses activity and adapted surroundings to facilitate the student's independent functioning and to decrease the effects of the handicapping condition on the student's ability to participate in the educational process.

Specifically, a therapy program is designed to assist the development of underlying skills that are prerequisites for academic learning and vocational training. It may include improving gross and fine motor skills; organizing and using materials appropriately; interacting with peers appropriately; improving coordination skills and postural control; and learning to dress or to feed oneself.

The academic and clinical education of the occupational therapist includes knowledge of human anatomy, neurophysiology, and kinesthesiology, as well as the developmental, behavioral, and social sciences, all of which are applied to a strong base of occupational therapy theory. With this education, the occupational therapist serves students through assessment, program planning, intervention, and reassessment. The intervention service provisions include individual and group therapy, monitoring of programs, and consultation.

The occupational therapy assistant's academic and clinical education program is two years in length and includes knowledge of basic anatomy and physiology, human growth and development, psychology, and an overview of occupational therapy theory. This education enables him/her to assist the occupational therapist in implementing occupational therapy intervention. The occupational therapy assistant must be licensed to practice in North Carolina and must be supervised by a licensed occupational therapist.

The occupational therapist is involved in the assessment which is the process of identifying the need for occupational therapy intervention including the type and length of time required. In the school setting, assessment includes screening, evaluation, and reassessment. The evaluation methods used may include observation of the student in all educational environments, interview, record review, standardized and criterion

referenced measures, and clinical evaluation. The areas that are assessed might include but are not limited to the following:

- sensorimotor components (gross and fine motor skills, perceptual skills, neuromuscular, sensory processing);
- oral/motor dysfunction and feeding problems;
- daily living skills (feeding, dressing, etc.);
- visual motor skills;
- prevocational/vocational readiness skills;
- need for environmental adaptation;
- need for adaptive equipment;
- psychosocial skills.

The occupational therapist plans intervention goals and activities that will assist a student with handicaps to benefit from educational experiences and that will contribute to meeting the goals and objectives written on the IEP. The IEP and the occupational therapy intervention plan are used by the therapist for planning occupational therapy services in the school setting.

In the school setting, occupational therapy intervention includes direct therapy, monitoring, and consultation. The specific activities or therapeutic methods used by the occupational therapist or the occupational therapy assistant are based on the results obtained by the assessment process.

After completing an evaluation, and interpreting the findings, the occupational therapist will develop the program and provide direct therapy. Direct therapy is the specific activities or therapeutic techniques used by an occupational therapist or occupational therapy assistant to remediate or prevent problems which adversely affect educational/vocational performance. Monitoring programs occur when the occupational therapist does the evaluation, interprets the results, and develops an intervention program such as feeding or fine motor. Then the therapist will teach someone else in the immediate environment to implement the program. The therapist will continue to have contact with the student, and the person carrying out the program on a regular basis and monitor the student's progress.

During consultation, the occupational therapist will use professional expertise to assist students and educational personnel in problem solving and achieving identified goals. The focus of the consultation can be on needs of individual students, teachers or other educational personnel, or the school system in general. Some examples of consultation may include:

- modifying classroom or other educational environments;
- modifying wheelchairs or other seating equipment;
- providing in-service education;
- assessing architectural barriers.

Documentation is essential to the occupational therapy process in school settings and becomes the written evidence that quality therapy services have been provided. Examples of types of documentation include:

- initial occupational therapy referral;
- occupational therapy screening and/or evaluation report;
- IEP goals and objectives;
- discharge/exit note.

Psychological Services may be delivered by a psychologist, social worker, school counselor, or behavior specialist. Very often the services of a mental health professional is important to educational programming.

Typically, psychologists do intelligence testing; that is, they can administer tests that identify IQ. For children with multiple handicaps, particularly those involving sensory impairments, like deafness and blindness, it is important to have a psychologist who has experience with children with these disabilities do the testing. For example, if a child uses sign language to communicate, you will want to make sure that the psychologist doing the testing can use it too. If the child is blind, you want to make sure that the psychologist uses evaluation instruments that do not require sight and that do not have test items that ask questions related to the ability to see. For example, "What color is the sun?" The psychologist also should understand norming procedures for and tests that are normed on the kind of student that you have.

Mental health professionals may be qualified to help you evaluate, collect data on, and develop programming about behaviors that students exhibit. Children with severe disabilities frequently exhibit behaviors that are considered antisocial, inappropriate, or dangerous to themselves or others. It may be critical that these behaviors be eradicated or modified so that they will not interfere with learning, injure the child or others, and/or stand in the way of the child developing positive social relationships.

Mental health professionals often can help you figure out when, why, where, and how often the behaviors are occurring and design systematic methods of changing these behaviors. These systematic methods are called behavior management programs.

Children with emotional needs also may benefit from other various types of therapy. Some children may be able to talk through their feelings either individually or in a group. Others may profit from expressing feelings through play, art, or music therapy.

Sometimes, school systems provide family counseling or behavior training for family members. Having a child with a severe disability can put a lot of pressure on the emotional and financial resources of a family. Schools may elect to have professionals speak with parents in a counseling or training context to work through problems and

develop skills that will assist them in better managing their child.

Social Work Services In recent years our society has been beset by complex, dangerous trends. We are seeing a rise in violence, drug and alcohol use, teenage pregnancy, and poverty. Families already affected by these conditions have fewer resources and less ability to cope with the problems that go hand-in-hand with having a child with severe disabilities. The role of the social worker is becoming increasingly important in schools that serve disabled children, particularly for children who are served by multiple agencies such as foster care, protective services, social services, mental health, and corrections. Social workers can assist families in contacting and obtaining services from these agencies. They may be able to help get hearing aids, food stamps, prostheses, or respite care.

Social work services include group and individual counseling with the child and family, working with those problems in a child's living situation (home, school, and community) that affect the child's adjustment in school, and mobilizing school and community resources to enable the child to receive maximum benefit from his/her educational program.

Rehabilitation Counseling means services provided by a qualified rehabilitation counseling professional in individual or group sessions that focus specifically on career development, employment preparation, achieving independence, and integration in the work place and community of a student with a disability. The term also includes vocational rehabilitation services provided to students with disabilities by vocational rehabilitation programs funded under the Rehabilitation Act of 1973, as amended. Rehabilitation counseling is a related service that was added under the Individuals with Disabilities Education Act.

These services are important for older students with severe disabilities because they provide a vital link with adult services. If appropriate liaisons are made with vocational rehabilitation and job placements before the student completes his/her public education, there will be greater likelihood of success. Parents will appreciate this service also because they frequently become secure with the services provided by school systems and do not think down the road as to what their child will be doing once these services are no longer available. They may be unfamiliar, frightened, and confused by what agencies can provide services and how to access these services.

Speech/Language Services are provided to students who have needs in development of speech skills and/or language (that may or may not be communicated

through speech). Speech/language therapists will work with children with severe disabilities to help them make various speech sounds for purposes of alerting or actually speaking. They also will assist the classroom teacher in helping the child learn a language system, whether it be through speech, signs, a communication board, a computer, etc. They can do assessments that will help you determine what is the best type of communication system to choose for a particular student and what is the natural progression of language using that system.

Speech/language therapists may be called upon to work with occupational therapists on feeding skills by assessing the students motor ability to make various mouth movements, such as chewing, lip closure, swallowing, etc.

Speech/language therapists can deliver therapy in groups or individually depending upon the child's needs. For example, if the child is having difficulty with pragmatics, such as speaking in a social situation, the therapist may elect to conduct therapy in a group with other students who have similar problems.

Transportation

Although it may appear to be strange to include transportation as a related service, addition of this service through federal law was considered very important. Many school systems do not provide transportation to students. A child with impaired mobility or reasoning ability may have problems getting to school independently. A large percentage of students with severe disabilities use wheelchairs and other mobility assistive devices. They may be unable to use regular transportation and require vehicles that can accommodate wheelchairs through lifts, special space availability, and unusual belting or other security features. In addition, many children with severe disabilities do not travel to their neighborhood school and have great distances to go daily. As a consequence, school systems must provide transportation as a related service to assure that students with disabilities can get to school every day.

The following are suggested steps and considerations for planning a network of transportation for children with severe disabilities:

- Whenever possible allow students to use the regular transportation facilities available to students without disabilities.
- Note any need for special equipment, such as a hydraulic lift.
- Coordinate routes with other public and private agencies involved in the transportation of persons with disabilities.
- Because riding in a bus or van can be very tiring for any person, especially for

persons with physical disabilities, it is recommended that a child be in transit no longer than one hour each way.

- If the student needs 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.

- Every driver and monitor should receive in-service training from the teacher or therapist on handling behavior and first aid techniques.

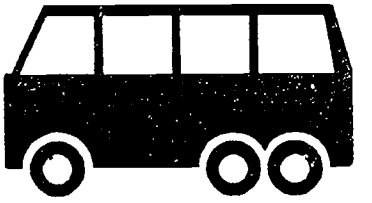
- Drivers and monitors should be informed of specific physical, medical, and behavioral problems of the students on his/her route.

- Every child should be fastened securely with a seat belt or other prescribed safety device.

Vehicle Modifications:

- Aisles, ramps, and steps should be stripped with anti-skid tape.

- A storage box should be provided to hold materials while in transit.



- 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.

- Position floor mounted wheelchair locks with seat belts so that students will be facing front (seats can be arranged around the periphery).

- 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 in 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 seat belt should be securely fastened.
- Brakes should be locked while on the lift.
- Another adult should stand in front of the lift to be sure the chair is secure while being lifted.
- When the lift comes to a complete stop, unlock the brakes and pull the student onto the van/bus.
- Position the wheelchair into mounting hardware and secure.
- Lock the wheelchair brakes and check the seat belts.

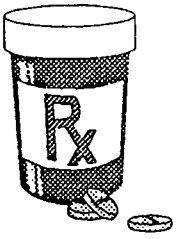
Outdoor Considerations:

- The loading and unloading zones in the parking area should be designated spaces which are located as close to the building entrances that are accessible to wheelchairs as possible.
- Route of travel from parking spaces to buildings should provide:
  - -- Curb ramps at points of pedestrian flow.
  - -- Smooth, hard, clean, slip-resistant surface with no abrupt change in level of more than 1/2".
  - -- 4-foot minimum with.
  - -- No hazards such as low chains, posts, or low overhanging objects, such as signs.
  - -- Places to rest where distances are great.

Medical Services may be provided for essentially two purposes:

1) by a physician to determine a child's eligibility for special education, and

2) for assisting or maintaining medical services without which the child could not participate in an educational program.



The medical needs of children with severe disabilities vary but often necessitate intervention on a daily basis by medical personnel. Nurses may need to dispense medication for seizures or hyperactivity disorders, suction, handle clean intermittent catheterization (CIC), or monitor tube feeding. Without prompt medical attention, many of these children may be in danger of further injury or even death.

You should be very familiar with your students' medical conditions and what measures must be taken on a routine and emergency basis. Emergency procedures for choking and seizures can be found on starting on page 55.

No child is permitted to attend school if he/she has not been vaccinated against the following:

- Polio - Trivalent Sabin Series (3)
- Measles - Live vaccine after the age of one year (2)
- Mumps - Live vaccine after the age of one year (1)
- Rubella - Live vaccine after the age of one year (1) or positive titer for immunity
- DPT, DT, and Tetanus (3)
- HIB vaccine for students 18 months to 5th birthday (1)

If a child does not have all of these immunizations by the time school starts, he/she should not be allowed to come to school until the school has written verification and dates of these vaccinations signed by the doctor.

All immunization records should be kept in the infirmary as well as in the student's permanent folder.

Contagious Conditions: A concerted effort should be made to isolate students with infectious diseases and contagious conditions and not to send students back to class while they are still contagious.

It must be recognized that most infections are contagious before symptoms appear and during early stages of illness. The symptoms of illness often linger long after all dangers of contagiousness have passed. The students should be returned to the

classrooms as soon as their conditions do not jeopardize their own health and the safety of their peers and contacts. They should be sent home if appropriate.

HIV/AIDS: In compliance with State and Federal Laws, the following is NCDPI's policy on individuals infected with the AIDS virus:

NCDPI is committed to taking the educated and informed approach in dealing with AIDS. This will allow us to provide an environment in which all staff and students will be able to work, learn, and live in a safe and productive manner. Staff members and students need to know that AIDS is a preventable disease and that there is no risk of transmission through casual contact. Barring blood transfer or sexual contact, there is no transmission of HIV among people living in the same household or from HIV-infected patients to doctors and nurses caring for them in hospitals, or from health care personnel to patients. Fluids that can transmit the viral infection are blood, semen, vaginal fluids, and breast milk. The viral infection cannot be transmitted through saliva, sweat, urine, and tears.

NCDPI respects the dignity and worth of every person. Students and employees alike are guaranteed the right to employment and confidentiality in an organization regardless of their HIV status.

Emergency Drug Supply: A portable emergency drug tray should be available for immediate administration, by a nurse or physician only, of a medication not otherwise obtainable in the time required. The emergency drug box is not a source for supplemental supply or stat orders but for true emergencies only. At least one emergency drug tray should be available and stored in such a manner so as to make it inaccessible to students, but readily accessible to licensed personnel.

An entire list of the contents of the box should be posted in the tray.

Procedures:

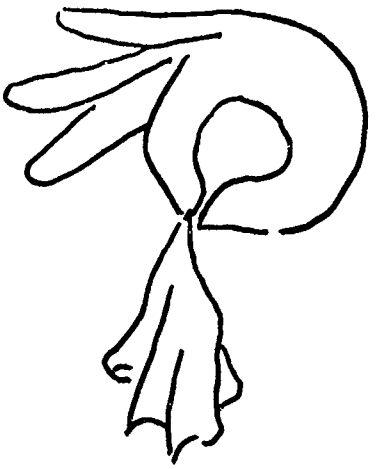
a) A valid physician's order, oral or written, should be required to justify use of any drug from the emergency drug tray.

b) When ordered the nurse should unlock and remove the prescribed medication.

c) As soon as possible the nurse should enter a full record of the drug withdrawn from the emergency drug tray on the emergency drug administration record which is kept in the emergency tray. The record should include the name of the student, name of the physician, name and dose of each drug being administered, and the signature of the person who administers the drug or drugs, and reason for use.

d) After the use of the drugs from the emergency tray, the nurse should enter a record of this administration in the student's health record or log.

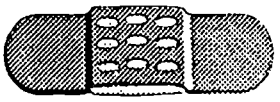
Handling Infectious Agents: The following practices and guidelines should be employed at all times when providing care for all students/employees regardless of the presence or absence of a known infectious disease. Because secretions such as blood, menstrual flow, urine, feces, mucus, saliva, semen, tears, and drainage from wounds of any individual may contain infectious agents, disposable gloves should be used when handling blood or other body fluid or when cleaning surfaces soiled with these fluids. Hand washing is necessary even if gloves are used. Hands should be washed vigorously for at least ten seconds before (if conditions permit) and following the administration of first aid.



In an emergency, when gloves are unavailable, bleeding should be controlled by using the most handy cloth or available article of clothing. Gloves should be obtained as soon as possible without endangering the well-being of the injured. In this situation or when unanticipated contact occurs, hands and other affected areas should be washed thoroughly as soon as possible.

Infirmary Use: All children going to the Infirmary should have a written pass. If a young child is to be sent to the infirmary for any reason, he/she should be accompanied by an adult. Older children may be sent alone when appropriate, but a staff member should call the nurse first to let him/her know the child is coming.

In an emergency, a student should be taken directly to the Infirmary. If the injury or illness is of a nature in which the student should not be moved, the Infirmary should be called. If practical, the office should be notified. In case of an accident or a serious illness, a written report should be submitted to the office as soon as possible.



If children become ill while in school, they should be seen by the school nurse, and if he/she feels they need medical attention, they may be seen by the school doctor if one is available. Children should be sent home if they need bed rest for more than one day, have an infectious illness, or should be seen by the family doctor.

Any cuts, scrapes, bumps, and bruises needing attention should be referred to the nurse. If a staff member is not sure it is bad enough for the nurse, the child should be

sent anyway. Any suspicious bruises, etc. the child comes in with from home should be reported to the infirmary. EVERY cut, bruise, scrape, etc., whether reported to the nurse or not, should be documented in a staff member's daily log.

Medications: Any and all medication should be kept in the Infirmary, including vitamins. Under no circumstances should any staff members administer any medication to any student unless such administration is under medical supervision.

Psychotropic Drugs: The need of a student for psychotropic drugs will be determined by a consulting psychiatrist or the student's psychiatrist from home. He/she will examine and interview the student, and may observe the student in class, confer with the student's teacher and dormitory counselors and, if possible, with the student's parents/guardians. He/she will determine the nature of the student's symptoms and behavior and will make a psychiatric diagnosis according to DSM III.

After a psychiatric diagnosis is made and parental/guardian consent is obtained, a consulting psychiatrist may prescribe an appropriate psychotropic drug, either an anti-psychotic drug, anti-anxiety drug, or an anti-depressant, as indicated. Any school administration should be done by the school nurse, who also will assure proper storing and recording. If the drug is to be taken over the weekend, the parent/guardian should be given a prescription for the medication with complete instruction as to its administration. The parents/guardians and the infirmary as well as the student's teachers should be informed of any possible side effects to be watched for, and any such effects should be reported immediately to the school nurse and/or psychologists, who will contact the consulting psychiatrist by telephone regarding changing of dose or discontinuation of the drug. If blood counts or other laboratory tests are necessary before or during treatment, arrangements should be made for such tests. In emergencies the school pediatrician may prescribe such drugs, with parental/guardian consent, and the consulting psychiatrist should be notified.

The student's symptoms should be reviewed periodically, at least once a month, to determine the need to continue or modify the use of the drug. The parents/guardians should be consulted before initiating drug treatment, and their consent must be obtained. If a parent/guardian has any opinion as to continuation or modification of the use of such a drug, the parent/guardian should be encouraged to be in contact with the school psychologist who, in turn, will discuss the question with the psychiatrist.

Drugs will not be prescribed unless the psychiatrist feels that they are the treatment of first choice. Nevertheless, if parents/guardians disagree as to the use of such drugs, other treatments should be tried (e.g., behavior modification, counseling, etc.).

EMERGENCY PROCEDURES

Seizures and Convulsions:

What to do:

1. Stay with the person. Observe the length and course of the seizure so an accurate report can be made.
2. Protect the person. Break his/her fall and clear the area where he/she will be thrashing about. Loosen any tight clothing especially around the neck.
3. Never move or restrain movements of a person already convulsing. Turn his/her head to the side to allow saliva to run out rather than be aspirated after movements have stopped.
4. Do not put anything into the person's mouth.
5. Protect the person's dignity and self-esteem.
6. Allow the person to rest after completion of a seizure and re-orient himself/herself to his/her environment.
7. Notify the child's parent and/or physician.

What to note about a convulsion:

1. What part of the body was first affected,
2. Whether or not the person lost consciousness,
3. Skin color and aspirations,
4. Type of muscle response (contractions or relaxing),
5. Was the person incontinent of urine and/or feces,
6. Appearance of pupils,
7. How long convulsion lasted,
8. Any injury that occurred,
9. Condition of consciousness after seizure subsided,
10. Physician and/or parent notified.

Partial Airway Obstruction

When there is only partial airway obstruction, the victim may be capable of either good air exchange or poor air exchange.

When there is good air exchange

- The victim can cough forcefully, but frequently there is a wheezing sound between the coughs.
- As long as good air exchange continues, the victim should be allowed and encouraged to persist with spontaneous coughing and breathing efforts.
- Do not interfere with the victim's attempts to expel the foreign body.

Poor air exchange may occur initially, or good air exchange may progress to poor air exchange. Poor air exchange is indicated by:

- A weak, ineffective cough;
- High-pitched noises while inhaling, such as a crowing-like noise (stridor);
- Increasing respiratory difficulty and possibly cyanosis (bluish color of the skin, fingernail beds, and inside of the mouth).

At this point, the partial obstruction should be treated as though it were a complete airway obstruction.

Complete Airway Obstruction

Conscious Victim -- known complete airway obstruction

1. **Determine complete obstruction (e.g., victim was eating)**

   - Victim gives distress signal which is the gesture of clutching the neck between thumbs and the index finger.
   - If the child can speak under normal conditions, the rescuer asks, "Can you speak?"
   - If the child makes no response, the rescuer announces, "Cannot speak and is not coughing?"

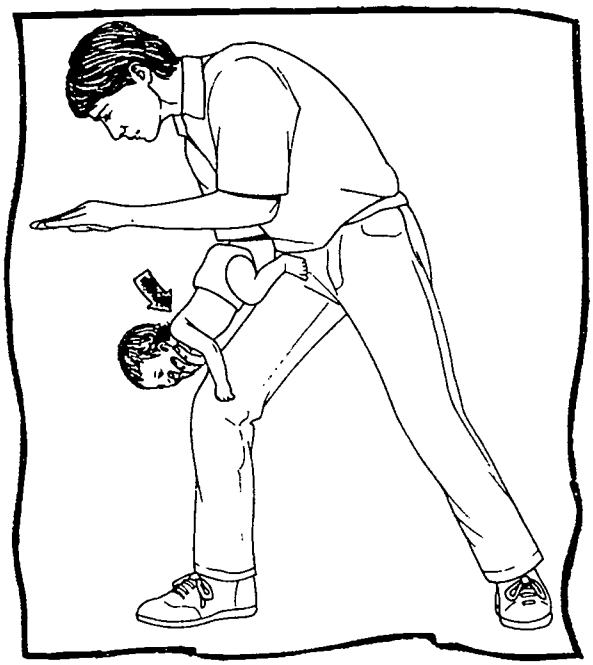
2. **Give four back blows in rapid succession. (See illustration A.)**

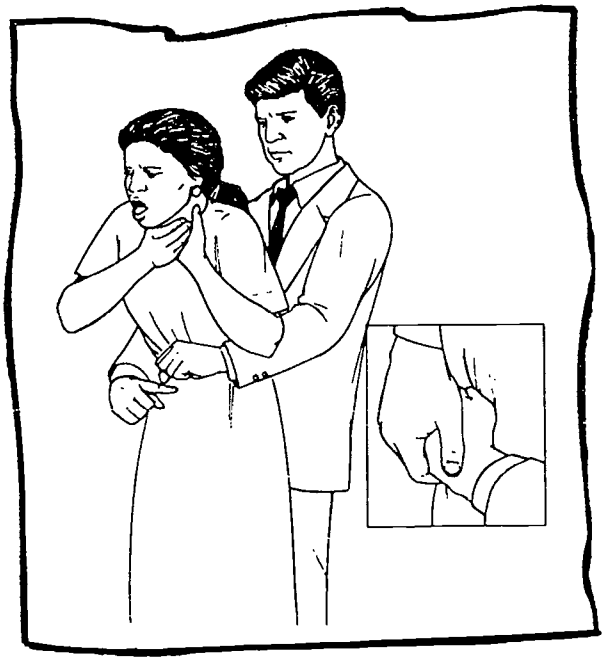
   - If the victim is lying, roll the victim on his/her side, facing the rescuer with chest against knee.
   - If the victim is sitting or standing, the rescuer should be behind and at the side of the victim.
   - If the victim is an infant, he/she should be face down on the rescuer's forearm, head down.
   - Make sharp blows with the heel of the hand on the spine between the shoulder blades.
   - If no change to the victim's condition occurs, the rescuer should announce, "Object still obstructs airway."

3. **Give eight (8) manual thrusts. (See illustration B.)**

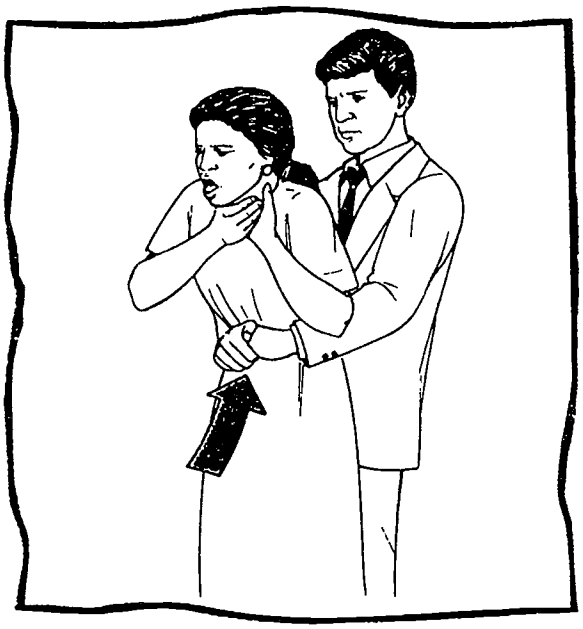
   a. If the victim is **standing** or **sitting**, the rescuer should:

      - Stand behind the victim and wrap his/her arms around the victim's waist.
      - 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.

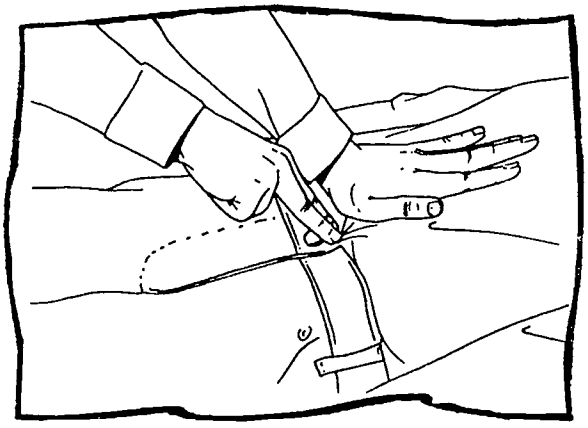




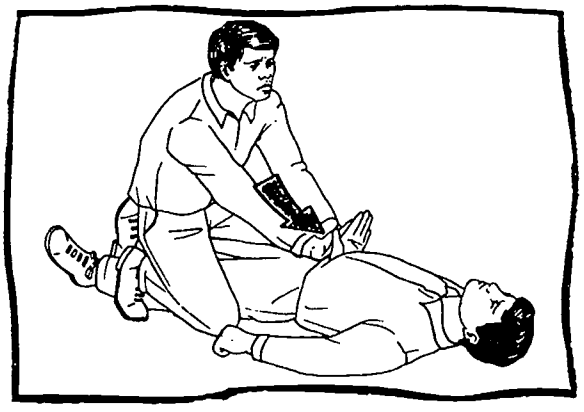
STEP 1



STEP 2



STEP 1



STEP 2

b. If the victim is in a **lying** position, the rescuer should:

- Place the victim on his/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 diaphragm with a quick upward thrust.

c. If the **alternate straddle position** is used (i.e., small rescuer, large victim), the rescuer should:

- Place the victim on his/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.

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

Unconscious Victim -- (victim on his/her back)

1. **Tilt the head and attempt to ventilate the victim. (See illustration C.)**

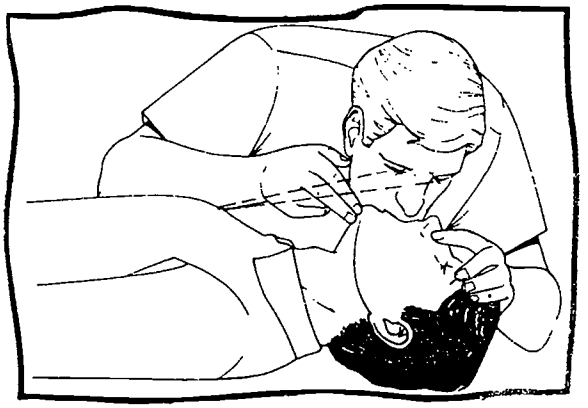
- Place one hand under the victim's neck, the other on the forehead.
- Pinch the victim's nose and seal the mouth.
- Rescuer blows into the victim's mouth (mouth and nose in the case of an infant) while watching for his/her chest to rise.
- Rescuer moves his/her mouth and looks, listens, and feels for air return and the chest to fall.
- If there is no change in the victim's condition, the rescuer announces, "Cannot be ventilated."

2. **Give four back blows.**

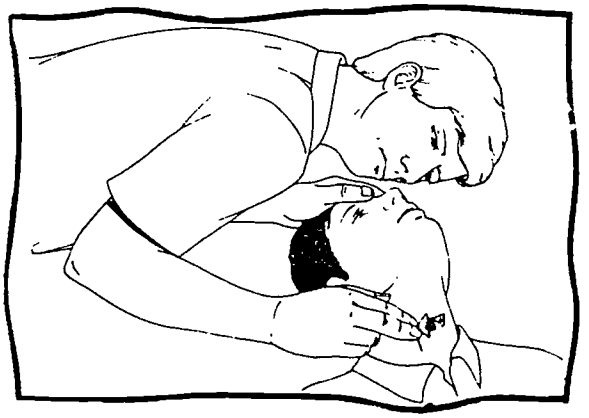
- Give the blows in rapid succession.
- If there is no change in the victim's condition, the rescuer announces, "Object still obstructs airway."

ILLUSTRATION C

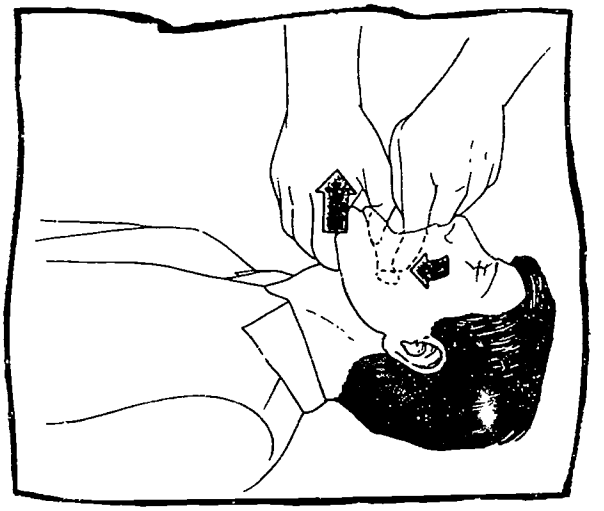
STEP 1



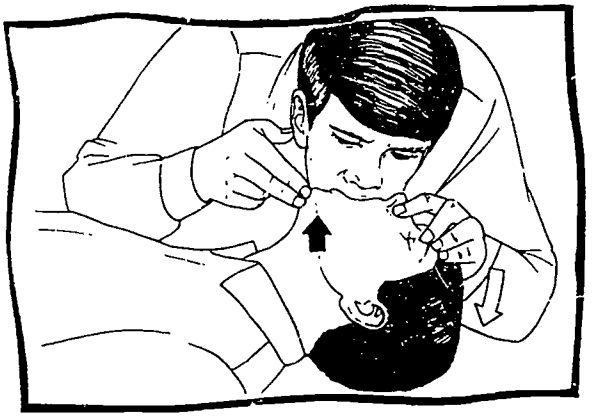
STEP 2



STEP 3



STEP 1



STEP 2

3. **Give eight (8) manual thrusts.**

- Give the thrusts in rapid succession.
- If there is no change in the victim's condition, the rescuer announces, "Object still obstructs airway."

4. **Perform a finger probe. (See illustration D.)**

- 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/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.
- If there is no change in the victim's condition, the rescuer announces, "Object still obstructs airway."

5. **Repeat the sequence at least once:**

- Attempt to ventilate.
- Four back blows.
- Eight manual thrusts.
- Finger probe.

BUILDING STANDARDS

Specific modifications of facilities will depend on the needs of the students enrolled in each class and the design of the particular facility. Building specifications and standards can be found in the following publications which are available through the North Carolina Department of Public Instruction:

SP105 Selected Laws that Relate to the Construction and Repair of Public School Buildings in NC (1988)

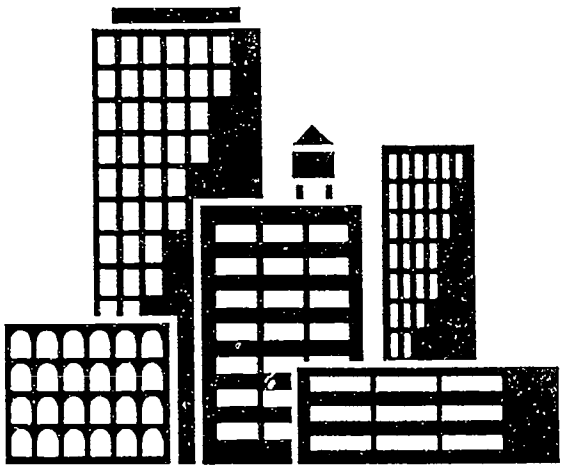
SP110 North Carolina School Facilities Standards (December, 1988 revision)

SP111 North Carolina Public Schools Furnishings and Equipment Standards (Draft -- September, 1988)

In addition to these publications, referral also should be made to:

Book on Building Codes for the Handicapped, which is available from:

The Department of Insurance
410 N. Boylan Avenue
Raleigh, North Carolina 27611



Facilities for Special Education Services: A Guide for Planning New and Renovated Schools

CEC Publications
1920 Association Drive
Reston, VA 22091 (703) 620-3660

The following represent some modifications that should be considered in facilities that educate children with severe disabilities:

Outdoor Considerations:

- Outdoor wheelchair height water fountain;
- Fenced/matted area;
- Covered/shaded area;
- Adaptive playground equipment;
- Ramps or grades for wheelchair access;
- Textured markers or pathways to alert visually impaired students to different areas or changes in terrain.

Doors and Hallways:

- Doors must have a continuous, smooth kick plate on the push side at least 10" high to allow pushing open with wheelchair bumpers.

- 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.

- 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.

- 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 should have slip-resistant surfaces -- carborundum grit, strips, or rough concrete are acceptable surfaces. Handrails are recommended.

- Handrails should be provided on both sides of stairs.

- Doors should have windows or be see-through so that hearing impaired students are aware that there is someone on the other side and to avoid collisions.

- Tactile indicators should be placed on the floor or walls before stairs to alert visually impaired students.

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.
- Lever-type faucets are preferred for all sinks.
- 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.
- Inexpensive adjustable toilet seats are available which will accommodate children of different sizes.
- Magnetic catches should be used on the doors of the stalls.

Classroom Considerations:

- Provide a quiet area for a variety of activities.
- 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 independent control, within each lighting area should be provided.
- Phone jacks or intercom switches should be provided in each classroom for emergency calls.
- Windows with a maximum sill height of approximately 3 feet will allow all students, including those in wheelchairs, to view the outdoors.
- Plexiglass should be used for windows if students tend to have "acting-out" behaviors.
- Because it has been demonstrated that color does have a decided, though subtle, effect on the tendency for producing certain behaviors, 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. 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 large equipment (e.g., mats and bolsters) may be installed.

- Storage units should be built 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.

- Blind spots in which a child may be out of view of an adult should be avoided.

- 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 hearing units, should be removed or enclosed so as to prevent injury.

- All desks, tables, chairs, adaptive equipment, and work areas should be designed to accommodate all children.

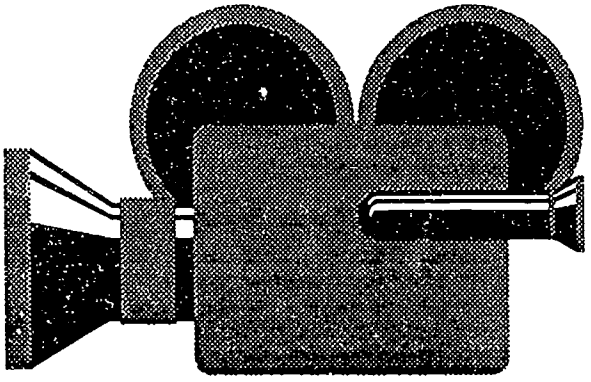
- Daily schedules, specific information for programming, and safety rules and procedures should be posted as well as emergency phone numbers. This should be done in accordance with confidentiality regulations.

- 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.

MATERIALS AND MEDIA

Materials should be selected for children with severe disabilities that take into account their chronological age, developmental level, learning style, physical abilities and limitations, and motivation. Although many children with severe disabilities function developmentally at very young levels, their chronological age should be considered in making material selections. For example, a male student of 17 should not be given a stuffed animal with which to walk around. A textured vest, wrist band, or necklace may provide the same sensory stimulation and comfort. Children with hearing impairments should have materials that enhance visual input; by contrast, children with visual deficits should have materials that enhance auditory input. Instructional materials that vibrate, light up, and move often have a lot of appeal to children with severe disabilities.

Materials also should be selected to assure that all curricular areas are supported. For example, teachers should have instructional materials on hand not just for language development, but also for development of motor, leisure time, cognitive, and vocational skills.



The following are some suggestions for frequently used materials in classrooms for children with severe disabilities:

Activities of Daily Living

- baby bottles
- tipsy cups
- glasses/cups and dishes
- silverware
- eating and cooking utensils
- straws
- combs and brushes
- toothbrushes and toothpaste
- fasteners -- buttons, snaps, zippers
- soap
- detergent
- washcloths and towels
- plates with suction cups
- non-skid place mats

Sensory Stimulation

- spices
- soft hairbrush
- plastic squeeze bottles
- bubbles
- textured materials
- vibrators
- visual stimulation materials -- mobiles, mirrors, books
- auditory stimulation materials -- rhythm instruments, records, tapes
- hair dryers or fans
- feathers
- flash lights

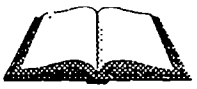
Instructional Supplies

- curriculum guides (in all instructional areas and at all appropriate developmental levels)
- form boards
- size forms
- attribute blocks
- boxes for teaching position
- magnetic letters and numbers
- magnetic board
- busy boxes
- multishape box
- rings on a peg straight
- graduated blocks, and cylinders
- beads and pegboards

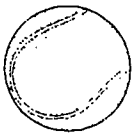
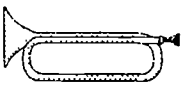
Leisure Time Activities

- playdough
- paints
- felt tips
- chalk
- easels
- glue
- pencils -- jumbo and regular
- paper -- newspring, tagboard, and construction
- clay
- silly putty
- toys (age and developmental level appropriate)
- nerf balls

puzzles with or without knobs
lego building blocks
cardboard cards for writing names
of people and things
magic markers, fat pencils
blunt end scissors
tape
language stimulation cards, games,
tennis balls
cards
bean bags
play clothes
musical instruments -- harmonicas,
sticks, recorders
record players or cassettes

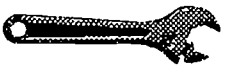


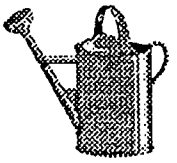


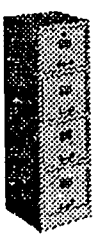



Vocational

screw driver
tweezers
hammer
nuts
bolts
screws
envelopes and paper
labels
packing materials
sorting materials
sorting and assembly trays
circuit boards
signs of emergency
goggles or safety glasses
gardening tools
cleaning supplies
food preparation supplies

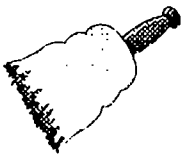






Equipment

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
file cabinet
bean bag chair
storage shelves
movable partitions
record player
cassette player
prone board
walkers and wheelchairs
augmentative communication devices
typewriter with guard communication
balance disc
rocking boat or chair
trays for wheelchairs
stove
refrigerator
washer
dryer
blender
computer with peripherals



Suggested toys (manufacturers) and the skills they can enhance

Air Pressure Activity Center (Battat):
eye-hand coordination, visual stimulation, cause and effect.
Big Mouth Singers (Child Guidance):
auditory awareness, visual skills, eye-hand coordination.
Bristle Blocks (Playskool):
tactile stimulation, form and color concept, imaginary play.
Busy Poppin Pals (Gabriel):
eye-hand coordination, visual stimulation, cause and effect.
Cone Puppets (Battat):
communication, group or solitary play.
Dancing Animals Music Box Mobile (Fisher-Price):
visual awareness and tracking, auditory awareness.
Gertie Balls (Small World Toys):
tactile stimulation, motor skills.
Happy Apple (Fisher-Price):
auditory awareness, visual stimulation.
Helicopter Rattle (Discovery Toys):
motor planning, grip, auditory and visual awareness.
Koosh Balls (Oddzon):
tactile stimulation, gross motor skills, grip.
Lauri crepe foam rubber puzzles (Lauri):
eye-hand coordination, visual stimulation and coordination, shape concepts.
Octopus Music Box (Kouvalias):
visual awareness and tracking, auditory awareness.
Push-n-Merry Go Round (Tomy):
motor planning, cause and effect, visual stimulation.
Red Rings (Johnson & Johnson):
motor planning, grip, auditory and visual awareness.
Rota Rattle (Ambi):
motor planning, grip, auditory and visual awareness.
Slinky (James Industries):
tactile stimulation, visual tracking.
Spin'n'Roll Rattles (Battat):
motor planning, grip, auditory and visual awareness.
Turn and Learn Activity Center (Fisher-Price):
eye-hand coordination, visual stimulation, cause and effect.
Wooden Puzzles (Small World Toys, and Marlon):
fine motor skills, visual skills, eye-hand coordination, cognitive skills.

(See Appendix C for extensive suggestions.)

AIDS TO HELP STUDENTS

Writing aids/guides:

Wrap rubber bands around a board and piece of paper to guide and show a student where the lines are for writing. This is helpful to students with low vision or weak fine motor control.

Pencil grips:

- Push a pencil through a small soft rubber ball, lightweight plastic sports ball (e.g., a whiffle ball), a bicycle grip, or a piece of styrofoam.

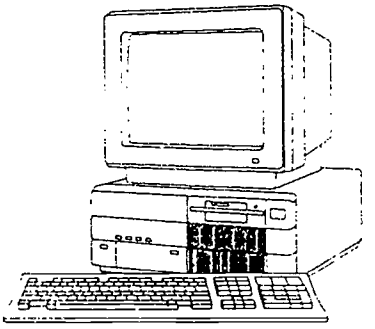
- Wrap around the shaft of the pencil twisted rubber bands, rubber grip used on ping pong paddles, or thin foam and tape.

This will help some students get a better grip on an object. These adaptations can also be used for any writing instrument, paint brush, art tools, silverware, hairbrush, or any item used in the hand. Most materials can be found at any hardware, craft, or sporting goods store.

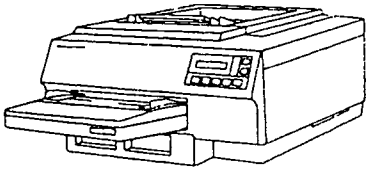
Suction cups:

Rubber suction cups and mats from the housewares department and kitchen stores are wonderful to secure objects to tables, floors, or wheelchair trays. They are useful in holding many objects stationary.

TECHNOLOGY



The use of technology is becoming increasingly important in designing educational interventions for children with severe disabilities. Assistive devices are available in almost every curricular area to help children circumvent physical limitations. For example, wheelchairs are becoming lighter, more adaptable to the size of the user, and more diversified in their use. In the past ten years the use of switches to help people with severe motor limitations has skyrocketed. Switches are used to let children with severe physical disabilities operate toys and simple gadgets. Older individuals use them to control their environment (e.g., lights, clocks, door latches, thermostats, etc.). Switches help children learn cause and effect, express preferences, and gain independence through control.



Computers are being used extensively with children with disabilities. Many kinds of computer software are available to teach language, math, cognitive skills, and eye/hand coordination. Computers can be used as communication boards by displaying communication symbols and allowing the child to make choices by touching the screen, depressing the keys, or giving oral commands into a headset. Technology is so advanced today that apparatus is even available to measure pupillary movements in order to determine what symbol on the computer the child is looking at, thereby understanding what the child is trying to communicate.

Communication boards are quite common now with children with severe disabilities. They can be as simple as cards that a child selects or a menu of words or pictures to which a child points, to computers (as explained above). If it seems to be appropriate to use an augmented communication system for a child, several factors should be considered:

1) What is the symbolic level at which the student operates? That is, can he/she read words, understand pictures, or only relate to actual objects? Levels of symbolic understanding that should be determined prior to setting up a communication board are:

- Actual objects
- Miniaturized versions of actual objects
- Color photographs
- Black and white photographs
- Color drawings

- Black and white drawings
- Idiographic symbols
- Words

2) What are the physical abilities of the child that will determine how he/she operates the board both receptively and expressively

   - Can he/she see the board? If not, symbols will have to be tactilely revealing.

   - If the board provides auditory feedback, can the child monitor it? Many people are selecting communication boards for children that will speak for them. For example, the child depresses a key with a picture of a toilet and the machine says, "I have to go to the bathroom." If a child is hearing impaired, he will be unaware that the machine responded to his command except possibly through your actions. It may be possible to add a light display for the child so he/she knows that the machine recognized his/her input.

   - Can the child use his/her hands, voice, eyes, or head to operate the communication board?

   - Does the child need the board expressively and receptively. For example, the child may be able to hear and understand language but not be able to express it. In such cases, persons communicating with the child should not only talk, but also point to the symbols on the board to help establish for the child that this is an expressive device too.

3) What kind of choice technique would meet the child's needs? Basically, there are three kinds -- 1) **direct select**: This involves the child pointing (in some fashion) to the item on the communication board; 2) **scan**: This involves the machine scanning all of the choices and the child arresting the scan when it passes the choice the child wants; 3) **encoded**: This involves the child using a code for a choice he/she actually wants.

Lights can be used to enhance instruction for children with severe disabilities. Lights can be used for alerting devices for children with hearing impairments. For example, the lights in the room can be turned on and off to let the students know you want their attention. Many children with visual impairments like to self-stimulate with light as it may be all they can perceive. Teachers may use flashlights, colored lights, or strobes for reinforcers or attention getters. Depending on the etiology of a child's vision loss, the teacher may want bright or dim lighting in the room. If a child spends too much time self-stimulating with light from the classroom windows, the teacher may want to pull down shades. Certain types of seizures may be triggered by light. This should be taken into consideration when planning lighting for the

classroom or in choosing it as an instructional motivator or alerting device.

One important technological capability that is now emerging is voice recognition. Voice recognition means that the computer can interpret a person's speech and respond with a correct visual or motor action. For example, a child could say, "Select," and the computer would put up a menu of choices. At this moment there are some commercially available pieces of software that will allow the computer to be "trained" to respond to numerous commands from one person or a few comman 's from many different people. By contrast many products are on the market that allow the computer to speak for the child by having him/her make symbolic selections.

Provision of assistive technology is no longer an option. Federal law (P.L. 101-476) mandates such provision when it is necessary in order to provide a child who has a disability with an appropriate education:

> Sec. 300.4 Act
>
> As used in this part, "Act" means the Individuals with Disabilities Education Act, formerly the Education of the Handicapped Act."
>
> Sec. 300.5 Assistive technology device
>
> As used in this part, "assistive technology device" means any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of children with disabilities.
>
> Sec 300.6 Assistive technology service
>
> As used in this part, "assistive technology service" means any service that directly assists a child with a disability in the selection, acquisition, or use of an assistive technology device. The term includes --
>
> (a) The evalyuation of the needs of a child with a disability, including a functional evaluation of the child in the child's customary environment;
>
> (b) Purchasing, leasing, or otherwise providing for the acquisition of assistive technology devices by children with disabilities;
>
> (c) Selecting, designing, fitting, customizing, adapting, applying, retaining, repairing, or replacing assistive technology devices;
>
> (d) Coordinating and using other therapies, interventions, or services with assistive technology devices, such as those associated with existing education and rehabilitation plans and programs;
>
> (e) Training or technical assistance for a child with a disability or, if appropriate, the child's family; and
>
> (f) Training or technical assistance for professionals (including individuals providing education or rehabilitation services), employers or other individuals who provide services to employ, or are otherwise substantially involved in the major life

functions of children with disabilities.

GENERAL INSTRUCTION STRATEGIES

There are a number of instructional techniques that have been found to be effective with many children with severe disabilities:

Low Student to Teacher Ratio

Children with severe disabilities typically have multiple needs. A lot of time is consumed during the instructional day changing diapers, adjusting braces, setting up and taking down equipment, feeding, and getting from place to place. Consequently, the time the teacher needs to devote to each child individually is greatly increased over what a teacher with nondisabled children would need.

Sometimes the nature of the child's physical limitations necessitates a very low ratio. For example, a deaf-blind child can get almost nothing instructionally unless he/she has direct contact with the teacher.

Attention deficit and hyperactivity are common disorders of children with severe disabilities. These children require the instructor to work closely with them to help them stay on task.

Structure

Having routines, following stable schedules, maintaining the arrangement of the physical space, and reviewing and following through with instructional strategies seems to be critical to programming for many children with severe disabilities. Many of these children, especially those with autism or autistic-like behaviors, do not adapt to change well. They may become confused and irritated if there are changes to established patterns. All people respond better when they can anticipate what will be happening next. So much of life is outside the control and knowledge of students with severe disabilities -- they cannot see, hear, or understand what is about to happen. Reviewing schedules and sticking to them allows the child to feel more secure.

Behavior Management

Many children with severe disabilities evidence types of atypical behavior that obstruct learning and social interactions. Many of these behaviors are self-stimulatory. There are a number of theories why children with disabilities engage in these behaviors. Any one, several, or all of these reasons could be true for an individual child. These reasons include pleasure, to relieve boredom, compensation for neurological deficits, or habit. In any case these behaviors can have a serious impact on the child's learning and on his/her interactions with others.

Self-stimulatory behaviors can be categorized as: 1) motoric -- these behaviors entail a repetitive physical motion, such as rocking or spinning; 2) autoerotic -- these behaviors entail stimulation for sexual pleasure as in masturbation; 3) blindisms -- such as eye-gouging or finger-flicking in front of the eyes; 4) deafisms -- such as humming or tongue-clicking; and 4) ritualistic-perseverative -- such as "pill-rolling" with the thumb and forefinger, or twirling objects for comfort.

Other behaviors which may affect a child's performance include: 1) withdrawal -- the child refuses to interact with others. Because these children are usually passive they are often given little attention by staff. 2) aggression -- the child deliberately inflicts harm on him/herself, others, or property.

Before attempting to change or eradicate a child's behavior a number of steps must be taken:

a) Identify the behavior you want to change by describing it in physical terms. For example, *"Johnny pounds his fists on the table."* NOT *"Johnny has a fit."*

b) Determine how you will measure the behavior.

c) Determine the present level of performance; that is, how often or how much the student exhibits the behavior right now. This is called your baseline.

d) Identify antecedents to and consequences of the behavior. While recording the incidence of the behavior, write down everything that happens just prior to the behavior beginning and right after it ends. This information may provide you with clues as to why this behavior starts and why it is sustained. For example, Susie may begin whining at 11:30 each morning when the smells of lunch begin wafting into the classroom. The whining may stop after she has started eating.

e) Determine the desired level or incidence of the behavior. This means how often or with what intensity you want to see the behavior after you complete a program of intervention. For example, you may decide that you want a child's finger-flicking to decrease from once a minute to once every 15 minutes by the end of the semester.

f) Determine how long the intervention program will be enforced.

There are different data collection methods that will reveal different information about a behavior or a skill. One of these will be used to gather information and will serve as a basis for deciding whether improvement has occurred.

Frequency -- measures the number of times a behavior occurs. (e.g., *Roshedia goes to the bathroom four times every half hour.*)

Duration -- measures how long a behavior incident continues. (e.g., *Lulubelle rocks nonstop for seven minutes at a time.*)

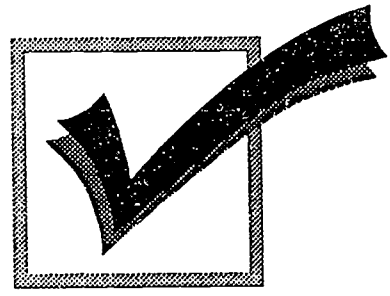
Rate -- measures the frequency of a behavior within a specific period of time. (e.g., *Germaine sneezes an average of four times a minute.*)

Latency -- measures how long it takes for a behavior to begin. (e.g., *Miguel doesn't begin his shop task for ten minutes after he arrives at work.*)

Locus -- measures where a behavior occurs. (e.g., *Bonita swears whenever she gets on the bus.*)

Topography -- measures what the behavior looks like (e.g., *Alphonse self-stimulates by rubbing his leg against the table.*)

Force -- measures how intensely a behavior is performed. (e.g., *When someone is looking Esmerelda stuffs her mouth with food.*)



There are a number of observational recording systems that can be used with one or several of the data collection methods mentioned above:

Event recording -- evaluates the number of times a behavior occurs. You may wish to use this with a simple data counting procedure like frequency or you may couple this with a procedure like force. For example, you may count a behavior as having occurred forcefully five times during the day and mildly three times.

Duration -- evaluates how long a behavior occurs. This system typically uses a duration data collection method.

Interval recording -- evaluates the proportion of a specific period of time that a behavior occurs. This system is often used with duration data collection. For example, based on the fact that a behavior occurred three times during an hour and lasted 10, 12, and 8 minutes respectively, you could conclude that the behavior is manifested half of the time, using an hour as the interval being monitored.

Time sampling -- evaluates the frequency of a behavior over a longer period of time. In this case you will sample frequency of behavior during selected samples of time during a week or month, for example.

Latency recording -- evaluates the length of time it takes for a student to perform. In this situation a segment of time is determined and time is measured until the student initiates the behavior.

These data collection methods and systems will be used to determine the baseline of the behavior, to identify the incidence of the behavior at specified intervals during the data collection period, and to evaluate the behavior after the behavior management or intervention program has been completed.

A few strategies are typically used when designing a behavior management program for a student.

- It is more important to reward good behavior than it is to erase undesirable behaviors. Reinforcing desirable behaviors with praise and token or tangible reinforcers will increase their incidence.

- The more limited the student's cognitive ability, the more likely the use of a tangible reinforcer, like food or music will be.

- Praise should always accompany other reinforcers because it promotes the value of social interaction.

- In deciding how often to give reinforcers, you should first provide them at a rate comparable to the rate at which the student is demonstrating the behavior. In this way the student will have an opportunity for "winning" the reward. Once the link between the behavior and the reward has been established in the student's mind, the length of time should be extended to a level that is beyond the current frequency but is within the student's grasp. For example, if the student will sit at a desk for five minutes without rocking, you can set the reward period for five and a half or six minutes. The student must know that the reward is there waiting for him/her.

- Withdrawal of attention is frequently used to de-escalate behaviors. If the student does something undesirable to get attention, do not give it at those times but be sure to give it when the student is behaving appropriately (positive reinforcement). Sitting in the corner, alone, or in a time-out room are examples of withdrawal of attention taken to an extreme. It is important, if the student has to be isolated, to provide as little affect as possible to the situation so that your negative response is not taken for the attention the student is seeking.

- Punishment should rarely be given -- only in extreme circumstances, such as if the student is injuring him/herself -- and then only under the supervision of a psychologist or psychiatrist with parental permission. Corporal punishment should never be used. Restraint is the type of punishment most frequently used to arrest serious behaviors.

Task Analysis

Most children with severe disabilities learn new skills in small steps. Many of the activities that we take for granted, like feeding

ourselves, combing our hair, going to the bathroom, setting the table, may be very complex for the student due to cognitive or physical limitations. If a child cannot perform a skill that is necessary to his/her welfare, the teacher should break down the skill into distinct steps and determine if the child has the present ability to do each of the steps or if some of the steps have to be taught first.

For example, to set the table the child must be able to discriminate between utensils, understand position in space, imitate patterns, and lift and transport the items. If the child cannot tell the difference in a sorting exercise between a fork and a spoon, then he/she is not ready to set the table and should acquire this skill first.

Controlled Presentation

Not only should tasks be broken down into distinct steps, but materials and tasks should be presented one at a time so as not to confuse the student. Controlled presentation may mean that you limit the amount of stimuli the student is exposed to at any one point so as not to overwhelm him/her. Some students with severe disabilities are easily distracted and have difficulty focusing. By limiting the stimuli during an instructional session, you reduce the chances that his/her attention will be taken away from the task. Keep working areas, such as desks and tabletops free of clutter. Choose workspace where there is little noise or visual access to other activities. Keep lessons short. Many of these children do not have long attention spans and will tire or become distracted if the lesson goes on too long.

Multisensory Approach

Each of us has a particular style of learning. Some of us learn best from listening, some from watching, some by participating. Children with severe disabilities learn in diverse ways as well, and are partially dictated by physical limitations. These children usually cannot tell us which way they learn best, but it is up to us to figure this out. By presenting new information through several sensory channels, you can increase the likelihood that the student understands the material. New material should be introduced through the student's strongest perceptual sense and then reinforced through additional ones. A teacher must be aware of and produce multi-sensory materials so all students can have access.

For example, if you are teaching the student to recognize the number three, you can show him/her a picture of the number (3), say the word to him, write the number on paper, trace the number in sand, make it with string, create it on paper with glue and glitter, etc.

Functional Approach

It is difficult for many children with severe disabilities to transfer skills from one context to another. Skills taught in the abstract or in isolation from an actual practical experience may have little relevance to the child since he/she cannot make the cognitive transfer to see how the skill applies to real life. Therefore, put new learning in a natural

context. Do not have a child sew a button on a piece of cloth; have him/her sew it on his/her shirt when it falls off. Wash dishes after lunch, practice washing up and brushing teeth first thing in the morning or before bedtime, practice zippering after going to the bathroom (on pants) and before going outdoors (on coats).

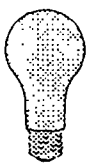
If the child is learning to sort by shape, use eating utensils in the drawers or nuts and bolts in storage bins. If the child is learning to sort by size, use plastic bowls or measuring cups that can be stacked and put away.

Environmental Engineering

Management of the physical space can have a startling effect on how children learn.

Sound -- In order to accommodate both the students who can work easily with noise and those that cannot, the room should have areas and sections where the students can communicate, and socialize, as well as quieter areas where students can concentrate and work alone.

Light -- Again a classroom must provide for both types of students, those that need a lot of light (this is important for hearing impaired people) and those that are easily distracted by bright lights (this affects many deaf-blind and autistic people). To accommodate the students, the teacher should allow them to choose areas where they can work the best (e.g., by a bright window or across the room in a darker corner).



Temperature -- Since it may be difficult or even impossible to adjust the temperature of a room, a teacher can accommodate for all the differences in the students needs by setting up the room so there are colder areas (by the window or door) and warmer (by the heater or in a corner) areas. The teacher should allow the students to work where they are most comfortable and able to concentrate and let them wear clothing that supports their preferred temperature level.

Design -- Since some students need a formal environment to function effectively while others need a casual one, the teacher should provide areas of the classroom that are structured and formal and others that are a casual setting. The teacher must also be aware of which students need a stimulating environment in order to do their best and which need a barren environment, void of any distractions, and be able to accommodate both types of students.

Responsibility

Short, relatively simple tasks may be assigned for a student who is unable to assume responsibility for learning. These tasks can be guided by direct supervision with deadlines, and progress reports. The tasks can be lengthened and made more difficult as a student gains more confidence and is capable of working more independently.

Groupings

A teacher should allow a student to interact in various situations to determine

in which setting the student will best realize the instructional goals. Some students respond best to working with peers, while others may do better working alone, in small groups, as a team, or with adults.

Learning Styles Students may vary in how they adapt to the learning environment and thus, how they best respond to instruction.

Intake -- Some students will require intake (food, gum, drink) when they concentrate on a task because they either need a release for the strain built up by their energy output or else the need to replenish energy from the intake. Other students will require the intake only after they have completed the task, not during. In order to accommodate all the students' needs and rights, a teacher needs to take into consideration the situation, the facilities, and students' ages and level of independence.

Time -- Students will vary in the times of day they are at their peak for learning. Not all students learn best in the morning. Teachers can carefully consider what activities they plan for the students and what time of day they do them. A quiet, study period may be needed at certain times of the day while at others a more vigorous activity is a better choice. Some students will need more motivation and stimulation than others on some activities just because of the time of day. A teacher needs to be aware of his/her students and plan and carry out the activities to compensate for different performance periods.

Mobility -- Some students who need to be mobile often will not be able to perform well if they are not allowed to change their position or location during an activity. A mature student may be able to control his/her physical movements but the younger, hyperactive student will have more difficulty trying to control his/her need to move. An informal classroom setting will provide more chances for movement and physical changes but sometimes the goal is to limit mobility and this can be worked into the learning situation depending on a student's capabilities. Again, a teacher must be aware of the students and their needs, limits, and how they will react to different situations.

Positions for Children with Poor Physical/Muscle Control Remember that not all positions will be appropriate for all children. For example, not all children can sit at a desk. Their functional and educational goals and personal physical needs and characteristics must be taken into account. A child's physical therapist will help establish what is best for a child with special motor needs.

<u>Carrying</u>

Lifting a child from a face-down position will provide good support of his/her head, back, and hips.

1. With a child lying face down, place one hand under his/her chest and the other under the upper thigh of the leg furthest from you.
2. Lift and rotate the child until his/her back is against your side and he/she is in an upright position.
3. Hold and carry the child with one hand around his/her chest and the other hand supporting under the hip.

Carrying a child facing you straddling your hip can help to keep the child's upper body and legs loose. Support him/her with one hand at the bottom.

A child that may need more support can be carried with the child's back to your chest with your arms under his/her bottom and upper thighs so that the child is "sitting" in your arms supported by your back.

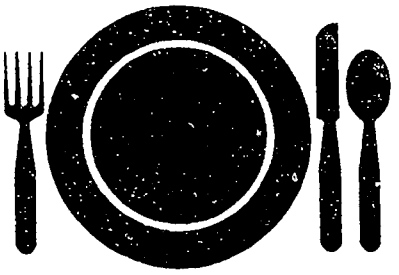
Toileting

For a child that requires diapers, several factors such as poor muscle tone, inability to move independently, or inability to relax can make diapering difficult. Positioning can make the task easier. Use positions that diminish unnatural posturing or stiffness and that try to encourage similar movements that the child's therapist uses (e.g., moving legs apart, bending knees). Diapering may be easier if the child is lying on his/her stomach because in this position it is easier to keep the child's legs apart.

A child must be able to sit or be supported in a sitting position with his/her legs apart in order to gain independence in toileting. When learning to use a toilet, a child needs to be relaxed and confident. The teacher should have patience and offer both physical and psychological support. Many potty chairs are available on the market that can be adapted to meet the special needs of a physically disabled child. It is important to remember when using a potty chair that the child's feet should rest on a flat surface, a lap strap should fasten at the hips and not the waist, and that most children will need arm rests or other side supports for balance and to maintain a relaxed sitting position. Potty chairs with enough side support can also be used to aid a child while dressing or undressing himself/herself.

If a potty chair or adaptive equipment is not available, different positions or adult support can help the child. To help with balance and keeping the legs apart, a child can sit on a regular toilet facing the back and holding on to the toilet tank or an arm rail. An adult can assist a child by holding him/her on the toilet. If necessary, this may involve sitting behind the child on the toilet and supporting him/her with your body while holding the legs apart with your hands.

Feeding



Many feeding and eating skills can be difficult for a child who is severely/profoundly or multiply disabled. Problems with mobility of the head, arms and hands, as well as, control of the tongue and muscles of the mouth and throat can make eating and feeding a difficult task. When feeding a child, it is important to remember that the child should be in a relaxed and proper position, and the feeding utensil, diet and texture of food must match a child's abilities.

Position is important for a child to safely and comfortably eat while being fed. Be careful that a child is not throwing back his/her head to reach a spoon or to drink out of a cup. It is better to be at the child's level while feeding and not standing above. The chin should be down but not tight against the chest. When feeding a child with a bottle the feeder can place his/her middle finger under the child's chin while holding the bottle. This is one way to help a child control his/her mouth movements and to drink more productively. A therapist can help explain what specific support or aids each child will need to eat and/or be fed.

Position is still important when teaching and encouraging a child to feed independently. When sitting, the child should be well balanced. Lap belts should be used across the hips to keep the child from sliding and his/her feet should be supported on a flat surface.

Bathing

Bathing is a daily necessary task that can also become a fun time of play or a learning activity. A child can learn about parts of the body, develop communication, play with toys, and learn different action words. As with any daily activity, positioning is important during bath time. Depending on physical characteristics, a child needs to be supported and bathed in the tub or can learn to be more independent in the care of his/her body. A child must be able to sit, have good balance, be able to use one or both hands, and be able to reach the parts of his/her body without losing balance in order to bathe independently. Special equipment and support can be used to help a child in any of these areas. Of course, the child must never be left alone in a bath tub no matter how independent he/she may seem.

Positioning is also important for the bath supervisor or caretaker. Back problems can develop from incorrectly lifting a child in and out of a tub and supporting him/her in awkward positions. Proper positioning and special bathing aids can make bathing easier on everyone. For example, backaches can be prevented by sitting on a low stool or chair (lower than tub height) while bathing or supporting a child in the tub.

If a child can support him/herself, a safe and easy position is to place the child on his/her stomach (in only 1 to 2 inches of water). Placing a child on his/her back in the tub is usually the hardest and most uncomfortable position for both the child and the bather. There are also non-slip and supportive devices on the market that can be used by a child in the tub such as a special sponge support or a bath chair. Before any special aid or device is used, the child's occupational or physical therapist should be consulted.

Playing

For some games and activities it can work to have the child sit astride your chest while you lay on your back on the floor. It also helps to keep the child loose and support his/her body if you hold his/her hands up and out to the sides.

Assistive equipment such as strap boards can be used to hold a child upright and offer support, such as at a table.

When holding a child in your lap, bending his/her knees and hips and straightening the back will help the child to sit easier and relax.

Good positioning can make a big difference in quality of a play activity. Be aware of the equipment used in an activity.

- Is the table the right height?
- Is the child placed in an appropriate sitting position?
- Can the child gain access to the toys he/she needs from his/her position?

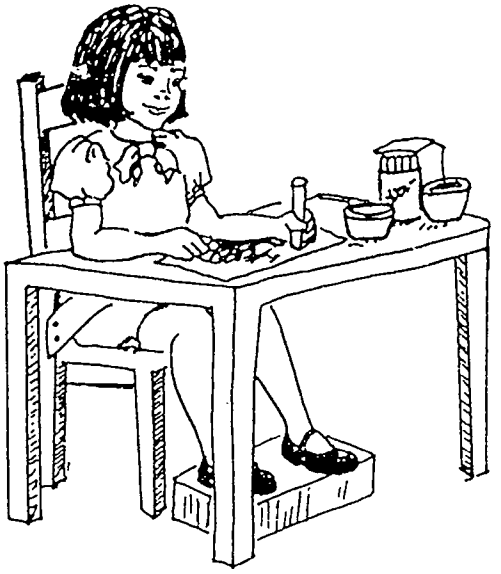
Sitting

Do not allow the child's feet to dangle unsupported when sitting. The ankles should be bent at a 90 degree angle so the feet are flat on the floor or a footrest. Either use the appropriately sized chair or place a firm box under the child's feet at the right height.

Be sure that the child's hips are well back in the seat to prevent sitting in a slumped position.

Transportation vehicles, wheelchairs and classroom chairs should have seat belts.

Limit the use of a wheelchair if there are other classroom chairs or positioning aids that can provide the necessary support. This gives the child variety and prevents pressure sores and fatigue.



Corner chairs enable the child to be sitting with the shoulders positioned to allow him/her to reach forward easily and to participate in school activities in an upright position. As with other sitting positions, the feet should be flat, a wedge can be used to separate the legs, and a seat belt offers safety as well as helps to keep the hips back in the chair.

A bolster can be an alternative from chair sitting. This can be used if the child has good balance or receives support from someone seated behind or beside him/her. The size of the bolster should allow the child's feet to be flat on the floor and the legs spread without discomfort.

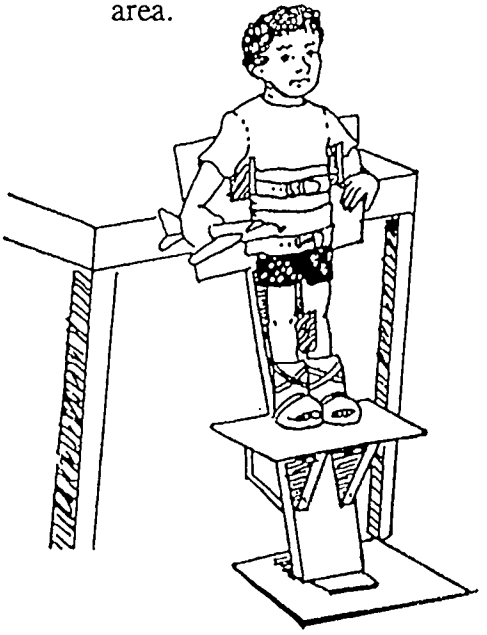
A cut-out table allows the child to get closer to a table surface which can be a problem with using wheelchairs at a regular table. It also offers more stability with elbow support. The height of the table depends on the individual's chair and needs.

Be aware of alternate positions other than sitting. Some other positions may allow the child to take part in activities with more ease and skill.

Remember to stand or sit at the child's level so the child will not have to extend his/her body excessively to try and see you.

Kneeling

This is a good position for weight bearing on the legs but only if a child's developmental milestones and physical status allow. The child should bear his/her weight equally on both knees which ought to be slightly apart. If the child is kneeling at a table, be sure that the table height is correct to offer support as well as a work area.



Standing

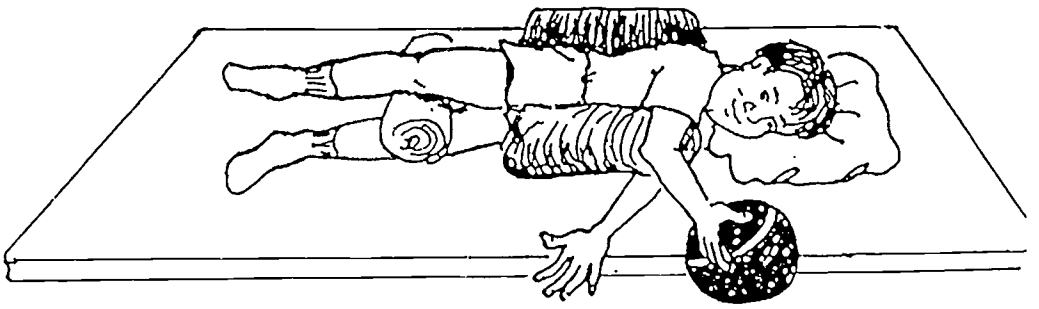
For students with poor muscle control, the use of a prone standing prone board allows support while standing. For older students, standing can be more socially acceptable than lying on the floor. A prone board offers valuable weight bearing on the legs and is readily adaptable to

classroom activity. In order to prevent any fears or insecurities by a student, he/she should receive a gradual introduction to it. Seat belts are required. Before its use, a prone board should always be recommended by a physician and supervised by a physical therapist.

Lying

One position choice is with a child lying on his/her stomach on a roll, foam, bolster, or wedge. This encourages the weight bearing on the arms, and head control, and is a good position to receive stimulation auditorially and visually. Make sure that the wedge or roll is of the appropriate size for the child and that his/her arms are placed in front of the edge. A sandbag or small wedge between the knees can help keep the legs apart. Remember that for a child who needs both his/her arms for support, he/she will not be able to point or reach for objects in this position.

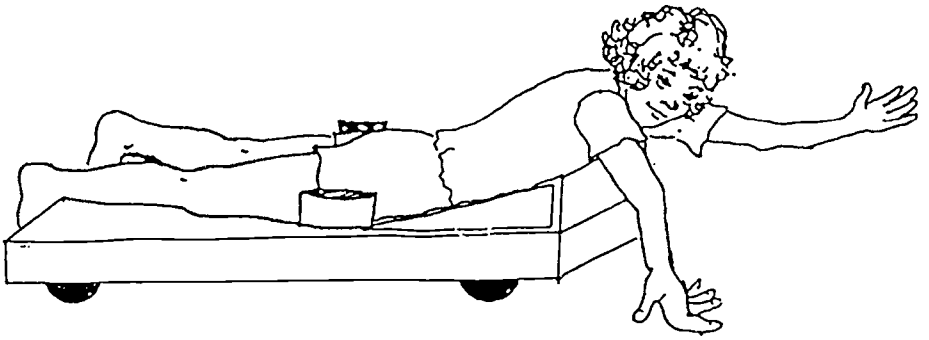
Another lying position is where the child is on his/her side. This enables the child to see even if he/she cannot lift his/her head and encourages the use of the hands in the midline. Activities, materials, and toys should be located in the area that will direct vision downward when the child looks so as to avoid hyperextension of the head and neck. When the child is placed on his/her side, be sure that the hips and knees are bent and the head is forward. Place a small pillow under the head and a firm pillow between the knees. Alternate the side the child is lying on if possible. If maintaining the position is difficult, secure the child with sandbags or wedges.



When a student is placed in a backlying position, place a pillow behind his/her head and upper part of the body. To limit stiffness in the legs, place small pillows or foam rubber under the knees. Sandbags used to maintain a symmetrical posture, if necessary, should be placed at the side of the chest and hips. If possible, a backlying position should be avoided unless it is the only feasible position due to severe deformities of the legs, chest, or spine.

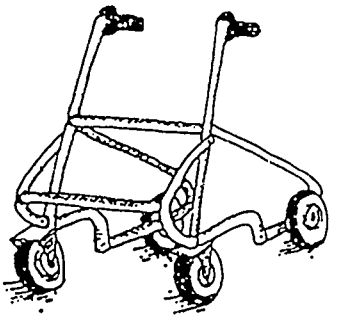
Getting around

Be aware of the equipment being used to aid a child in being mobile in his/her environment. Make sure that it offers enough support, maintains the child in a correct position, and does not increase stiffness of the body.



Scooterboards These are sometimes used to teach a child movement through space. Flat boards do not offer the necessary support. Proper positioning includes support for the chest, side walls, hip straps, a wedge to keep the knees apart, and the appropriate length for the child using it.

Walking aids These can be weighted wagons, chairs, or rolling walkers. A child's physical therapist will explain what is most useful for that child.

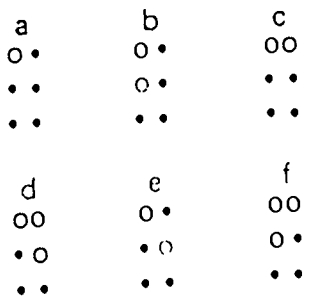


Communication

For a child with a severe hearing impairment as one of his/her multiple disabilities, oral communication first must consist of initiating verbal imitation of an adult before mimicking motor behavior, and making him/her aware of oral production to improve environmental awareness and to control inappropriate verbalizations.

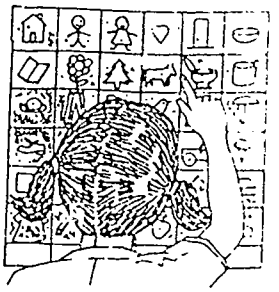
Manual communication can only be attained after attending behaviors (i.e., eye contact) have been established. Motoric imitation is the next step to teach a manual communication system, such as sign language, although the risk is that a student will learn to imitate a sign without having an associated meaning to the word. The Haight Method (R. Haight, 1975) teaches initial signs that are highly motivating to the child such as signs for a favorite toy or food. The method involves the child's hand being shaped in the sign desired, rather than imitating the teacher, with verbal and tactile reinforcement.

Braille -- This communication system for the visually impaired consists of variations of six raised dots in two vertical rows of three dots each. It can be produced onto heavy-grade paper using a stylus or a brailler. Braille is also used by deaf-blind persons, and there are electronic devices that can scan and transfer written materials into braille.



There are also electrical braille communicating devices. The Electro-Brailler is a

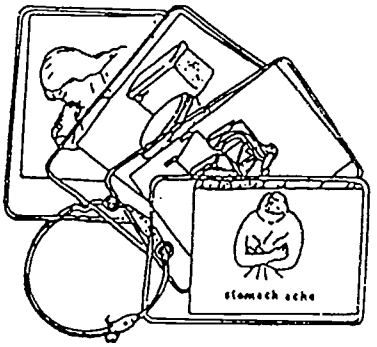
braille transcriber adaptor which converts electric impulses into braille dots. The Braillemboss is a similar device that also has computer time-share capabilities. The Teletouch uses a typewriter-like keyboard where braille letters are raised on a cell to correspond to the letters being typed into the keyboard. Optacon is a device similar to the Teletouch but it scans printed materials and creates the letters on the single cell. The Mounbatten Brailler is a portable electric braille writer that when connected to a computer can turn braille into print and print into embossed braille.

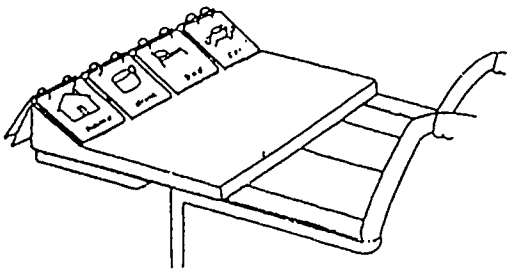


Communication boards -- These can be a display as simple as cards that a child selects, or a menu of words or pictures, or as advanced as a keyboard which can produce English words through programmed synthesized phonemes and morphemes which a nonvocal and/or physically limited person can select to communicate his/her needs, thoughts or feelings. Depending on an individual, the boards can be operated by either pointing or with electrical assists. Considerations, such as a person's physical limitations and cognitive level, go into determining which type of board a person needs.

Some examples of communication boards (from simple to complex) are:

Texture boards	Textures are used as clues for specific activities such as eating, sleeping and toileting to establish a regular reaction rather than an associated image. These are usually used with visually impaired students.
Object boards	Concrete objects are associated with physical needs, daily activities, or commonly used articles (e.g., a spoon can indicate a request to eat).
Picture boards	Pictures ranging from concrete (a photograph) to abstract (line drawings) are used to represent single nouns, verbs, and adjectives.
Symbol boards	Printed abstract representations of nouns, verbs, and adjectives may be pictographic, idiographic, logographic, positional, or arbitrary. Blissymbols and rebus are the two most popular.
Communication boards	These use printed words and are thought to be the hardest and most abstract type of board.





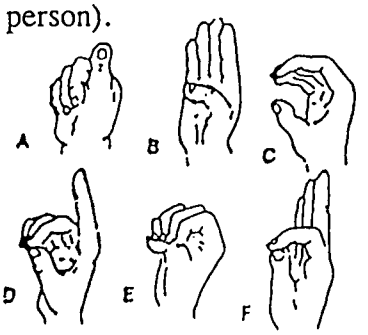
Nonverbal -- Ideas can be communicated without speech. Hugging, gesturing, turning away, crying, frowning, laughing, smiling, and/or mime are also ways to communicate.

Tadoma Method -- A method developed by a teacher of two deaf-blind students. The student uses his/her sense of touch for receptive language by placing his/her hands on the face of the person talking. The thumb is placed on the mouth and feels for movement of the lips, jaw, and tongue while the other four fingers are feeling for vibrations on the cheek and jaw.

Gestures -- These are the use of motions of the body or limbs to express or to emphasize an idea, feeling, or opinion. Examples of gestures are shrugs, head nods or shakes, or thumbs up or down.

Sign language -- This is a language composed of standard gestures of the hands, arms and upper body to communicate. The sign language used by the deaf and hearing impaired community in the United States is American Sign Language (ASL). There are also signing systems that follow English word order (e.g., Signing Exact English (SEE)). Pidgin Sign English (PSE) is a mix of ASL and signs put in English word order. A person can be taught to understand sign language by seeing it or by placing his/her hands on those of the signer (as in the case of a deaf-blind person).

Fingerspelling -- This is a manual form of communication which makes the letters A to Z with the fingers of one hand in certain standard positions. Fingerspelling tactilely conveyed is often used with deaf-blind people. The hand of the deaf-blind person is placed over that of the fingerspeller.



Cued Speech -- This is a manual method of communication for use with deaf students that clarifies mouth movements that may be difficult to see or distinguish. One hand is used by a speaker in eight shapes in four positions near the face. A visible representation of the syllables and phonemes of a spoken language are shown through the combination of facial and hand movements.

Palmwriting -- This method involves the communicator drawing the letters of the alphabet with his/her index finger on the palm of a deaf-blind individual to spell words and messages. This is used generally with people who learned to read before they lost their vision.

Computers -- Many types of computer software are available to teach language, math, cognitive skills, and eye/hand coordination. Computers can be used as communication boards by displaying communication symbols and allowing the child to make choices by touching the screen, depressing the keys, or giving oral commands into a headset. Technology is so advanced today that apparatus is even available to measure pupillary movements in order to determine what symbol on the computer the child is looking at, thereby understanding what the child is trying to communicate. Resources for computer software and technology are listed in Appendix D and E.

Group Auditory Trainers -- These are wireless, binaural systems that use FM frequencies to transmit and receive signals that allow for direct auditory communication between a teacher and a student. These are used with deaf and deaf-blind students.

Pre-Manual Communication Activities -- Like speech, any manual communication system is complex to learn. It involves high motor and cognitive skills. The following are some exercises you can use with students to prepare them for learning a manual language:

Warm-up Exercises: **To warm-up before hand and finger isolation exercises.**

Working with clay or hand lotion have the students:

- shake and wave their hands and fingers vigorously.
- open and close their hands (making a fist) slow and tight as well as quickly.
- massage their hands together with hand lotion.
- knead and squeeze the clay.

Balloon Game: **To practice isolation of specific fingers.**

Using deflated balloons (or pieces of string, ribbon, or yarn) place the balloon (or string) on a specific finger to be isolated. Have the student:

- play "puppet games" with the isolated finger.
- make the finger move, bend, and wiggle.

Finger Puppets: **To practice and learn isolation of specific fingers and groups of fingers.**

Using finger puppets, place one on the finger to be isolated. Have the student make the puppet dance and move. Place puppets on all or a group of fingers to practice isolating any finger or groups. Puppets made of different materials (e.g., yarn, paper, plastic,

wood) provide varied tactile input.

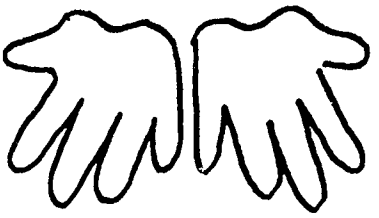
Rubber Band Exercises: **To learn and practice isolation of the thumb/index finger.**

Place a rubber band over the student's thumb and index finger. By "pinching" open and close the thumb and index finger, it stretches the rubber band and emphasizes the correct movement.

Clay Play: **To learn and practice isolation of the thumb/index finger**

Using clay (or cookie or pie dough), have the students:

- warm-up by kneading and rolling it with their hands.
- use one finger at a time (mostly the thumb and index finger) and poke holes in the clay.
- pinch the clay with their thumb and index finger.



General Suggestions for Communication with Students with Multisensory Disabilities:

- Build a bond with a student by initially jointly participating in activities. Manipulate the student's hands with your own so you do the activity together as one person.
- Introduce language at the appropriate level and method for each child. Be patient and persistent. The student will hear or receive words many times before associating meaning to them.
- Remember that students will communicate only if they have a reason; add motivation to activities.
- Make use of any residual vision (or hearing) the student may have in communication. Communicate at eye level, know the student's field of vision, and try for, encourage, and reward any eye contact.
- Help the student with all attempts to sign by manipulating his/her hands. Assistance will be required often before the student will do them on his/her own correctly and spontaneously.
- Develop communication clues so the child will know or be ready for what will happen. For example, tickling the palm of the student's hand could mean to prepare to be handed something.
- Repeat communication, activities, tasks, and daily routines to help the student to understand and keep up.
- Talk to a student, even with a hearing impaired student, normally as you would with a non-disabled student. The puffs of air, facial movements, and throat, cheek, and chest vibrations all aid in communication.
- Be consistent if the student communicates with a sign language. Everyone in the student's environments (school, home, therapy) should use the same signs to maintain consistency.
- When a student has learned one communication system, introduce and teach as many other systems as he/she can master. This will enable the student to communicate with different people using which ever method is most effective. For example, if a student has learned how to successfully use a sign language, teach him/her how to use communication cards so the student can communicate with members of the community who probably do not know sign.
- Base the student's language and vocabulary on daily activities and experiences rather than learning a list of vocabulary words of the "average" child.
- Take what a student knows already and expand on that. When teaching a sign language, manipulate a student's hands into and through signs/gestures that are just beyond his level but include some that he/she knows already. For example, if the student knows the sign for drink, add the word "juice "

Suggested Steps for Effective Communication During Activities:

- In the beginning, alert the student to your presence, don't assume he/she knows you are there.
- Introduce the activity, materials, or toys to the student; don't assume he/she has seen them, knows about them, or knows what will happen.
- Explain the activity, what you will do, and what the student will do.
- Do the activity. Participate with the student at whatever level he/she needs (e.g., imitation, passive assistance, active support).
- Review the activity afterwards with the student to be sure he/she understood what was accomplished.

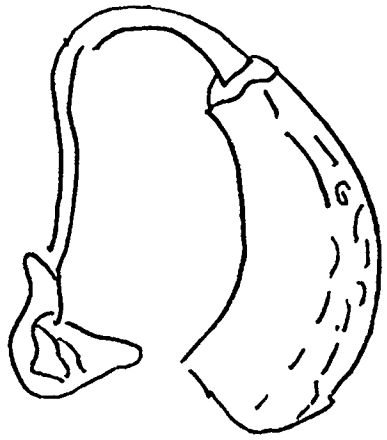
Auditory

Speech acquisition is not usually the goal of auditory training for the child with limited cognitive potential (although it is not automatically eliminated if the child appears capable) but instead the aim is to help the child to integrate auditory stimuli and be aware of warning sounds in the environment. While auditory training occurs both informally and formally, the formal instruction begins with the development of sound awareness where some kind of clear reaction to sound is sought (e.g., eye movement, breathing pattern, or sucking responses changing as a response to sound). Establishing this awareness of sound is important in determining the next levels of auditory abilities and functioning.

The next step in formal training is the teaching of gross discrimination of sounds. Once the child has learned to differentiate among gross sounds, he/she may go on to learn speech sound discrimination.

Another part of the training is learning localization of sounds, the resulting behavior of which is usually displayed by turning the head or body in the direction of a sound. Limited visual ability can make learning to discriminate the direction of a sound source more difficult.

Hearing Aids:



- First introduce each part of a hearing aid separately so the student can become familiar and comfortable with the tactile stimulation.

- Don't force the hearing aid on the student. Make it a game, leaving it alone and coming back to it if necessary.

- Make sure the student is comfortable with someone touching and washing his/her ears before a hearing aid can be inserted and tolerated.

- Teach the student how to put away and get the aid, how to adjust and care for it, and how to ask to have it removed.

- Allow the student to become tolerant of the tactile stimulation of the hearing aid by wearing it turned off before introducing any auditory input. Additionally, the student should begin wearing the hearing aid for a short period of time, 5 minutes, and gradually the duration should be increased to a full day.

- Do not try and teach the student how to integrate sounds with other senses until he/she has learned to wear the aid, and can tolerate auditory input.

Assistive Listening Devices (ALD):

These are listening aids that decrease the distance between a sound source and a microphone. This results in making voices louder while decreasing the noise level. These systems can be either wireless or hardwired.

- FM (frequency modulated) wireless systems are portable, battery operated devices that transmit auditory stimuli from the transmitter attached to a microphone to the receiver worn by the listener. These are often used in classroom settings.

- Infrared wireless systems use transmitters to send invisible infrared beams to receivers worn by listeners. These are used in many libraries, theaters, and large auditoriums.

- Induction loop wireless systems send amplified electrical currents through a wire (loop) that can be picked up by other wires, turned into a sound, and amplified by a hearing aid. These are portable and used in auditoriums, conference rooms, theaters, and concert halls.

- Hardwire systems carry auditory signals from a sound source to a listener via a wire.

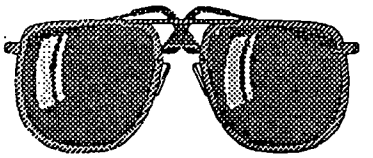
General Suggestions for Auditory Perception Training:

- Teach hearing impaired students how to identify and integrate any auditory input since they will often disregard any sound.
- Use simple auditory toys without a lot of other stimuli such as bright colors, movement, or many textures.
- A good first sound to introduce is a human voice along with body vibrations.
- Start auditory training at the student's level informally and continuously rather than at set times and places.
- Alert the student to any gross environmental sounds (e.g., car horns, airplanes, doorbells) and encourage input through the vibrations when appropriate.
- Give feedback to attempts at vocalizations through imitation and play.
- Be noisy (bang doors, set down objects heavily) and talk often around the student. Encourage the student to find the source when alerted by a sound.
- Teach the student how to play with noisy toys (e.g., party favors, horns, jars filled with marbles, beads, or bells.)
- Speak aloud when signing and gesturing.
- Encourage the student to find the source of a sound. Play "hide-and-seek" games with noisy toys.
- Eliminate as many other sensory input as possible when introducing a new auditory stimuli. Position the student to limit other input and offer security and control.
- Allow the student to have some control and say when he/she has had enough. Try other approaches to keep the training fun and interesting.
- Alert the student to his/her body parts that can make noise and vibrations (e.g., mouth, feet, hands). Show the student how to create the sounds by manipulating his/her body through the motions.
- Develop a communication signal or cue that says to listen (e.g., a tug on the ear lobe).

Visual

Vision training should be included in all areas of a learning plan since visual capabilities affect most other areas of development such as motor, cognitive, and social. A child cannot perform a cognitive task such as matching which involves crossing the midline if he/she has not mastered visually tracking an object from left-to-right. Placement and development of visual training requires professional assessments and should be considered in other areas of training. The range of visual functioning for each student will determine the techniques and materials used for instruction. Examples of these are large print books and materials, and low-vision aids such as magnifiers.

Light input is an important aspect of visual training. Considerations should be taken to screen strong lights or eliminate light distractions as well as observing the students' self-stimulatory actions to light input (e.g., poking their eyes, moving into awkward positions to be near a light source).



Several considerations should be taken into account before visual training is initiated. The instructor should be aware of the cause and prognosis of the visual impairment, general nature of the treatment, restrictions on the student's activities, best lighting conditions, and knowledge or opinion of the student's visual acuity.

The components of visual training are divided into a hierarchy of three skill levels. The first is sensation, or response to light. The student is made aware of and taught to respond to various light stimuli including differing intensities and colors, and even blinking lights. Visual/motor skills represent the next level and involve the development of visual/motor functioning through visual tracking skills, convergence training, accommodation skills, and eye-hand coordination activities. Once the child has mastered visual/motor skills, visual perception skills can be taught which enable the student to obtain meaning from what he/she sees. Perception training consists of the development of perceptual accuracy, rate discrimination, and visual directionality.

Other areas in visual training include figure perception and visual memory. To eliminate a student's confusion with figure-ground or distinguishing an object from its environment, a teacher can use materials that limit choices and adapt visual stimuli. Capabilities for visual memory, the ability to recall something that has been seen, are evident through the development of object permanence skills.

General Suggestions for Visual Training:

- Teach a student how to use any residual vision, and how to input it and integrate it with other sensory input. Experience will show where and in which position the student is most comfortable using his/her vision.
- Don't disregard visual input with the visually impaired student. Vision will not be the primary source of input for information, but it should not be ignored or abandoned.
- Offer support, reward, and encouragement to the student since visual training and input can be frustrating and tiring. A student needs to learn and realize that seeing can be useful.
- Alert the student visually to objects. Vary size, colors, and textures. Bang the object on the table, floor, or body for the student to become aware through vibrations.
- Encourage the use of vision in all activities and daily living skills.
- Remember to constantly reinforce the use of vision. Encourage eye contact.
- Have the student look at each body part when dressing.
- Encourage a student to scan with his/her eyes. Move objects slightly so the student will have to look for them.
- Use contrasting colors (e.g., a blue spoon on a red plate).
- Try and alert the student to something visually first before using it in the normal way.
- Attach concepts to visual stimuli (e.g., the blue glass means it is snack time).
- Start simply and eliminate distracting stimuli. Use toys that are visually stimulating only, not auditorily. Introduce other stimuli later.
- Start concrete (with objects) and then move on to pictures or abstracts.
- Start an activity by actively participating with the student and then move toward independence.
- Limit the size of the student's visual field and the number of objects within it.
- Allow the student to have some control by letting him/her cover his/her eyes or hide his/her head according to his/her own level of security.
- Establish a communication signal or cue to tell the student you want him/her to look at something (e.g., a touch on the chin) and reward proper responses to the signal.

Tactile Perception

Many students with severe disabilities do not have well integrated sensory perception neurological systems. They may be unable to identify tactile stimuli or have aversions or abnormal responses to certain types of tactile stimuli. Consequently, tactile perception may need to be a component of instruction. This will be especially important for students with both vision and hearing impairments because they will have to rely heavily on touch to gain information.

General Suggestions for Tactile Perception Training:

- Allow the student to have some control of what is happening and what he/she does (e.g., doing the touching rather than being touched) if it makes him/her more comfortable or secure.
- Remember that the texture and feel of clothing, food, and even the floor are important factors.
- Start off simply -- touch/no touch, movement/no movement.
- Add changes gradually with communication clues as to the change. Change only one factor at a time in a situation.
- Expect a student to reject something before accepting it.
- Keep situations secure and simple without distracting sensory input.
- Allow the student time with a new experience to relate it to past situations and to build on his/her understanding.
- Offer a variety of experiences that the student will need in order to integrate tactile input to the other senses.
- Be aware that people provide tactile input as well and will cause reactions. A student can react to body language, tension, anger, and rejection.
- Encourage tactile input as a back-up to visual and auditory input.
- Remember that students will differ on how best to be taught tactile input techniques. Take into consideration any residual vision or hearing, or any physical handicaps.

Vocational

Teachers can incorporate into the classrooms of the severely/profoundly disabled the same tasks used by vocational rehabilitation trainers. The assembly line-type tasks work on developing skills such as sequencing, left-right orientation, and self-correction. Techniques can be used to develop the skills necessary to do a single work-related behavior, or to develop the general skills associated with a specific task. As important as it is to develop motor and cognitive skills that will enable students to later perform on-the-job, it is also critical that they master work-related behaviors, such as sustaining an activity and punctuality. Community involvement and interagency cooperation is critical in planning for vocational services.

Recreation Activities

Recreation is a beneficial and worthwhile use of leisure time usually emphasizing or involving fun and happiness. For the child with severe disabilities, recreation is never really completely separate from classroom work because even in recreation activities, a child will continue to develop physically, socially, emotionally, and often intellectually, as well as just having a good time.

Some of the goals of recreation are to:

- develop communication skills;
- provide for satisfying peer relationships;
- build friendships;
- encourage choice making;
- build respect and competence; and
- develop community presence and participation.

Recreation or leisure time activities can be games, songs, parties, sports, dancing, crafts, and field trips. Many of these activities encourage social contact and interaction with peers as well as the opportunity to develop new interests, new skills, and feel like part of a group. The activities can strengthen and improve fine and gross motor control, coordination, and dexterity. Leisure time play activities and games are often used more as a way to practice and reinforce recently acquired skills rather than always to teach a new skill. A play activity can also be a positive way to encourage a child to practice speech or communication but should not become a therapy session.

An important consideration in planning recreation activities is that all group activities must be flexible and adaptable to all levels of abilities and disabilities that are participating. The slower children must not be left behind and the quicker students must not become bored or frustrated. Reassurance, encouragement, and praise are also necessary elements to an activity. Active or noisy activities should be alternated with less active and quiet ones to avoid the students becoming overstimulated, confused or exhausted. Knowing how much instruction or practice is needed to perform and enjoy an activity is important so students will not become discouraged or

bored. It is also best to break down activities and teach students each skill necessary rather than presenting the whole activity at once which may be difficult for some students.

Once a successful activity has been identified, variations of it should be tried (e.g., relay type games have many different variations). Once a student has mastered the skills necessary, it becomes easier for him/her to learn and enjoy other games of the same sort.

Recreation activities and sponsors can and should occur outside of school as well. Parent groups, city park departments, agencies such as churches/synagogues, YMCA/YWCA, Girl and Boy Scouts, other schools (both regular and special education), and community service clubs can be contacted to see what activities or services they can offer or modify to meet the students' needs. Look for community activity announcements in newspapers, newsletters, and flyers as well as notices from the local chamber of commerce.

A teacher or assistant does not have to do all the activities alone. Help can be requested from parents, other school children (regular and special education), and volunteers to help plan and implement activities and outings. These people can offer valuable support and supervision during an activity as well as in the planning and preparing. Involving others also gives the students a chance to interact with other peers and adults.

General Suggestions to Promote Community-Integrated Recreation:

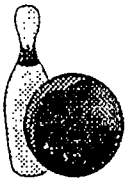
- Determine what a student enjoys doing and develop recreation activities that incorporate them (e.g., if he/she enjoys being in the water, go to the pool or the beach).
- Assess a student's recreation preferences.
- Assess community recreation opportunities.
- Develop a list of community events to be able choose a range of recreation options.
- Look for a variety of transportation options to get to activities.
- Provide modifications, adaptations, training, and support to students and community members.
- Develop partnerships with key personnel and/or volunteers.
- Encourage volunteer activities.

General Suggestions for Enhancing Recreational Participation:

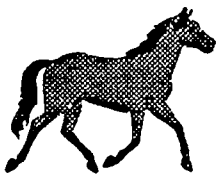
- Describe immediate environment and activities to deaf-blind and visually impaired students.
- Modify settings and/or adapt activities.
- Encourage students to participate as much as they are capable of and increase participation as skills and interest increase.
- Provide systematic instruction.

Field trips are a wonderful way to involve disabled students in the mainstream world around them. Outing ideas include picnics and cookouts, and trips to a farm, zoo, or fair. An area or location should be chosen that will have activities and stimulation to interest all the children in a group. Activities that are all or mostly visual will exclude the blind and visually impaired students. Activities should offer a variety of stimuli.

Music can be a part of an activity even for those with hearing impairments. Students can have fun with musical instruments such as drums, maracas, and horns (blowing or squeezing type). Activities with these can be just playing them for personal pleasure, taking turns sounding their instrument on cue, or imitating the teacher's rhythms. Musical games such as the "Hokey Pokey," square dancing, and a conga line can be adapted and modified with the help of assistants to be played by students in wheelchairs.



Sport activities can be modified forms of baseball, bowling, miniature golf, and racquet games. Wheelchairs can be pushed around "bases," lightweight balls can knock over plastic jug "pins," or cloth balls can be thrown and caught with velcro covered mitts or paddles. In these activities, volunteers and assistants can be valuable in helping the physically impaired to be mobile, or retrieve balls and pins. Swimming is another sport activity that many disabled children can participate in and enjoy. The activities, how they are played, and what equipment is used will depend on the abilities of the students involved and must be adaptable to include everyone at some level. National or local sports associations or organizations may have information on how to modify an activity for people with disabilities.



Horseback riding is a sport that is not completely off limits to disabled children. Disabled riders can use special saddles, belts, and harnesses if needed for support. Riding horses is a wonderful way for students to experience a different mode of transportation and go places that wheelchairs cannot. Referrals and information can be obtained from local riding schools or organizations for disabled persons.

For activities involving students with disabilities, remember to make any necessary accommodations in the materials, actions, or directions to involve everyone.

When adapting an activity for disabled students consider their:

- Physical abilities
- Mode of transportation (walkers, wheelchairs)
- Visual/auditory functioning
- Communication method
- Intellectual level

Adaptations to aid students with visual impairments:

- Use circle and line formations that are easy to follow.
- Count aloud and clap to help keep the students informed and aware.
- Inform them where the leader is and other actions happening.
- Use balls with bells and rattles.
- Pair blind and partially sighted.
- Use balls that are soft, larger than normal, and white or bright colors.
- Use music or rhythmic actions.
- Break down complex activities.

Adaptations to aid students with hearing impairments:

- Face the group.
- Use gestures, sign language, or demonstrations.
- Pair hearing with hearing impaired people.
- Use signs or written communication.
- If outside, do not position hearing impaired students looking into the sun for directions.

Suggested activities to modify:

weight lifting	fishing	circle games
trampoline	horseback riding	tag games
dance (individual or group)	gymnastics	sliding
ball games	diving	archery
skating	swimming	excercise equipment
hiking	skiing	wrestling
bowling	track and field	arts and crafts

Games

- Bean bags are great for games because they are light weight and will not bounce away if dropped.

  -- Bounce or throw a ball or bean bag into a bucket. Vary the ball size and gradually increase the distance to the bucket. Let students throw at will or teach them to wait for a signal. Have students retrieve the balls. (Develops motor development, visual spacing)

  -- Balance a bean bag on a body part while walking, crawling, riding, etc. (Develops motor planning, perception of movement)

  -- Toss a bean bag into the air and try to catch it. Try to clap or hop while the bean bag is in the air. (Develops motor planning, visual control)

  -- Have students, sitting in a circle, pass bean bags between them. Tell them to pass it over their head, under a leg, etc. (Develops crossing midline, spatial relations, motor planning)

- Have the students carry containers (e.g., pots, bowls, baskets) of something across a room or area without spilling. A fun race is to have another container at the end in which the students fill with the objects each trip across. Fill the containers with water, rice, beans, or cotton balls. This can also be done as a relay race for a group activity. (Increases skills in body awareness and control, and perception of movement)

- Develop a game where a student reaches into a bag of familiar objects (e.g., comb, spoon, pencil, orange) and identifies them one at a time by touch. (Increases skills in tactile awareness and discrimination)

- Have the students imitate and walk like animals. A dog, bunny, bird, crab, duck, or elephant are some fun ones to try and imitate. (Increases skills in body awareness, environmental awareness, and motor planning)

- Remember that even students with limited hearing can enjoy music and rhythm games. These can be played individually or can be a group activity. Easy to learn and play are "Head, Shoulders, Knees, and Toes," "The Hokey Pokey," and "Ring-Around-the-Rosy." (Increases skills in auditory integration, motor skills, group play)

Arts and Crafts

Arts and crafts are a productive way for disabled students to spend their leisure time. What a particular child is capable of will depend on his/her physical and mental characteristics, but many activities can be modified to fit many different ability levels. Even physically disabled students can do activities like working with paint (with brushes or fingers), shaping playdough, or making designs with rubber stamps. Students with more dexterity and muscle control can do those crafts or even attempt more difficult ones such as creating a collage with pictures or textures, or creating sculptures with styrofoam pieces and toothpicks.

The following are some suggestions for art activities:

Painting (develops tactile awareness, and motor control):

Paint with:
- brushes
- fingers
- plastic or cardboard combs
- squeeze bottles
- sponges

Paint can be:
- paints
- shaving cream
- pudding

Activities:
- paint pictures, stories, memories
- paint patterns, shapes
- trace shapes
- mix in rice in finger paint for texture
- alternate using both hands together and independently
- fill in designs
- paint on floor, wall, at a table, at an easel
- trace hands

Collages and Sculptures (develops fine motor, and tactile/visual awareness):

Materials:
- fabric swatches
- colored paper
- buttons, beans, pasta
- textures (tinfoil, plastic, sandpaper, tissue paper)
- toothpicks
- styrofoam pieces
- marshmallows

Activities:
- glue or attach pieces together for a sculpture
- attach to paper to create a collage
- create items with a theme

Ink Stamps (develop motor control, and visual-spatial perception):
Stamps can be made from:
- wooden blocks with rubber designs
- eraser tips on pencils
- sponges
- one-half a potato, apple, lemon
- fingers, hands, feet
- end of cardboard tubes

Ink:
- ink pad
- paint

Activities:
- stamp randomly
- create patterns
- follow directions or patterns
- make hand prints

Stringing (develops fine motor control, and tactile awareness):
String onto: (needs at least one stiff end or a blunt needle):
- cord, string, twine
- shoe laces
- yarn
- straws

String:
- cereal
- macaroni
- buttons
- beads
- thread spools
- straw pieces
- marshmallows

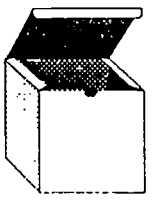
Activities:
- design patterns
- follow verbal instructions to create a design
- follow a printed picture of design

Playdough/Clay (develops fine motor control, and tactile awareness):
Shape the dough with:
- cookie cutters
- knife
- egg slicer
- rolling pin
- garlic press
- scissors

Activities:
- roll into balls
- cut into pieces
- roll flat
- roll into snakes
- press through slicer or press
- mold into shapes
- press designs/marks into dough
- poke, prod, pat, pull, tear

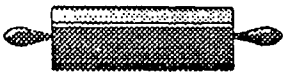
Gluing (develops fine motor control, and tactile awareness):
Glue:
- buttons
- cereal
- macaroni
- beads

Attach to:
- paper
- styrofoam, plastic or paper plates
- wooded signs
- plastic pieces or containers
- hanging ornaments



COOKING

Cooking is another craft in which disabled students can participate to varying extents. With supervision, a child can help cook by pouring or mixing ingredients, cutting out dough with cookie cutters, or decorating cakes and gingerbread men with pieces of candy. Specially designed cookbooks have been designed for this population.



NATURE ACTIVITIES

Activities involving nature can be done in or outside of the classroom. There is a lot of stimuli in nature that can interest, entertain, and educate students. In the class, students can help to care for a plant, or a class pet such as a gerbil or turtle. A field trip to an aviary, zoo, or a nature tour to a lake or the woods is full of sight, smells, sounds, and textures to share with the students. Local parks departments have suggestions and can provide assistance in planning activities and field trips.

Recreational activities do not always have to involve a group or a teacher. Some students may enjoy spending time by themselves and should have time alone. A student may need some supervision but can enjoy listening to music, working on a simple jigsaw puzzle, or just playing with a favorite toy.

Motor

Although, typically, motor training is planned with physical therapists, occupational therapists, and adaptive physical education teachers, classroom teachers are often called upon to integrate motor goals and objectives in classroom activities. Group or solitary activities depend on the student's age and functional level with appropriate intervention and teaching methods.

Components of a Good Motor Development Program:

- Know the student's abilities, needs, behaviors, and medical history.
- Learn the necessary precautions and limits of the student.
- Make sure that any aids or assistive devices (e.g., glasses, hearing aids) are on and working.
- Set objectives.
- Know the student's tolerance level to avoid overstimulation.
- Start on the floor and work up to sitting on a lap, mats, and equipment.
- Work as one with the child through each activity and stage to develop security.
- Gradually withdraw support at each stage before moving on to the next one.
- Let the student know your whereabouts at all times so he/she can have contact with you if needed.
- Observe and evaluate a student's abilities and progress at various times, settings, and activities.
- Be aware of a student's responses to activities. Don't assume he/she will be the same day to day.
- Present challenges and problems to solve. This develops self-confidence and trust.
- Observe a non-handicapped child's reactions and responses to an activity or environment. This can give clues and ideas on how to modify and design a program for a disabled student.

General Suggestions for Motor Training Activities:

- Allow the student enough time to become familiar with the environment and materials in order for the activity to be a success.
- Offer the student intervention, manipulation, or modeling to help him/her understand the activity and develop the necessary skills and security.
- Give immediate feedback about the student's actions and results so he/she can compare and modify if necessary.
- Use the student's communication system throughout the activity.
- Observe all levels of development. Don't make any assumptions. The ability to walk does not automatically mean the ability to crawl.
- Teach a student to relax.
- Allow a student time to anticipate an event.
- Use daily living skills as natural situations to work on gross and fine motor skills.
- Remember the why's (objectives) of an activity and don't become too engrossed with what is being taught.
- Look for things in the environment to use for learning (e.g., a hill, tree, bench, rock, field). Try and see it as the student does.

Cognitive-Conceptual

Many students with severe disabilities are cognitively limited; others are not, but may not have developed cognitive skills because of sensory deprivation. Too often we shelter students with severe disabilities from taking responsibility for problem-solving situations and tend, instead, to do tasks for them. Thus, it is exceedingly important to conscientiously infuse cognitive and conceptual skills training into each and every lesson. For students with sensory limitations this may entail assisting them in finding means of learning information through alternative sensory channels. For example, students with hearing losses can learn about sound through vibrations. Students with visual impairments can learn shapes by feeling objects.

Provide the student with a reactive environment that includes:

- communication;
- control by the student;
- challenging through problem solving;
- motivation through emotional bonding;
- increasing the range of experiences building on each other; and
- time to explore often and changes introduced gradually.

General Suggestions for Cognitive and Conceptual Skills Training:

- Teach the student how to play through all stages (i.e., concrete, representative, imaginative, parallel, and interactive play).
- Encourage interaction and exploration of environments with all senses.
- Show and reinforce what the student accomplishes when he/she effects something in the environment by moving objects, self, or making noise.
- Teach the student to explore and learn objects by function.
- Use a full communication system.
- Manipulate a student through all daily activities even before the formal training of how to do it himself/herself.
- Allow the student to anticipate events. Don't startle him/her. Use special signals or clues to inform the student what will happen next, and use false starts (i.e., start to move a child's hand to an object then stop, pause, and finally complete the action.)
- Use bright reflecting toys to stimulate any residual vision.

General Suggestions for Cognitive and Conceptual Skills Training:
(Continued)

- Encourage touch and grasping for objects.
- Have contact with the student often.
- Do transitions slowly.
- Teach the student to explore a variety of uses of familiar objects.
- Encourage repetition of enjoyable and desirable activities.
- Make sure the child recognizes and understands any changes introduced.
- Teach object permanence by getting objects and returning them to the same place when finished.
- Encourage the student to manipulate (tap, squeeze, or drop) not just "touch," objects.
- Don't restrict a student's activities too much; allow him/her to learn about the world and environment as a non-disabled student does, through exploration, and trial and error.
- Teach the meaning of "no" and what objects are not for the student. Allow the student to understand why and to locate the objects.
- Give the student control to say no when appropriate.
- Remember that the goal is to allow the student to learn about and interact in the environment, its joys and hazards.
- As a student progresses:
    - Teach him/her to group objects.
    - Teach spatial relations and his/her body to the environment.
    - Gradually introduce imaginative and independent play by lessening your involvement and intervention, but still share and encourage.
    - Give challenges and encourage making choices, problem solving, completion, and identification.

Orientation and Mobility

Most students who are identified as legally blind will need some form of orientation and mobility training. Orientation essentially means the person understands where he/she is in the environment and how to plan the route to his/her destination. Mobility involves the skills to travel safely and effectively from place to place using such aids as a white cane or guide dog.

General Suggestions for Orientation and Mobility Training:

- Explore the environment from the student's perspective (i.e., listen, touch, feel, see, and smell) for clues on what input the student receives in order to help him/her understand it.
- Let the student be involved with selecting things (e.g., food, clothes, toys) and putting them away. Be consistent where objects that the student knows and uses are located.
- Allow and encourage the student to participate as much as possible in his/her environment (e.g., assign responsibilities, let him/her order in a restaurant or make a purchase at the store.)
- Set boundaries for safety reasons.
- Familiarize the student with his/her environment (e.g., school - halls, rooms, doors, furniture; outside - sidewalks, streets, bushes)
- Reward and encourage all successes no matter how small.
- Teach the student to avoid obstacles because it is impossible to eliminate all of them.
- Establish routines and gradually expand on them. Introduce new terrain or environments slowly.
- Provide the student with motivation to move through the stages of mobility which are (with no set boundaries): 1) emphasis on self-image and position in space; 2) motivation to move; 3) associate familiar objects to specific places; 4) exploration; and 5) formation of "map" in the mind of environments.
- Don't stop once the student masters walking -- teach him/her to run, hop, or skate.

Activities of Daily Life Skills

Helping students with severe disabilities become independent is one of the most important goals of education. The greater their skills at managing their daily lives, the more likely it will be that they can approximate normalized living and working conditions. Teachers will often find themselves in the position of teaching skills that are normally thought to be learned at home. Thus, it is likely that instruction will be given in dressing, eating, toileting, shopping, etc. Whenever possible, new skills should be taught in a natural context for students who have difficulties generalizing concepts from one environment or situation to another.

General Suggestions for Activities of Daily Life Skills Training:

- Begin as early as possible encouraging the student to take an active part in his/her activities of daily living.
- Make the student aware of the importance of an activity. Don't just focus on teaching a specific skill.
- Try and do an activity of daily living blindfolded or with only one arm to understand the difficulties involved and to get clues on how to teach it to the disabled student.
- Encourage the student to do things independently once the student understands an activity and has the necessary skills.
- Remember that time and patience are required.
- Maintain routines until the child masters them, then alter only one part at a time.
- Encourage an understanding of body concepts and awareness by manipulating the student's hands through the motions of an grooming activity.
- Involve the student in all parts of an activity (e.g., have the student take part in filling the bathtub, gathering the towels, etc.).
- Make activities of daily living like a game so they will be fun and interesting.
- To help teach the student to care for his/her possessions, keep objects in regular places, teach and encourage putting objects away after use, stick to routines, and encourage involvement.

INSTRUCTIONAL GUIDELINES

- Carry out those goals and objectives as specified in the child's IEP.
- Decide how children will be grouped, scheduled, and organize activities by their use of time, space, equipment, and personnel.
- Keep schedules flexible to take into account unforeseen emergencies or difficulties.
- 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 therapist is teaching a 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 family to give the child opportunities to use that system.
- Incorporate feedback from other professionals and paraprofessionals. No one person has all of the answers. Work as a team.
- Be prepared. Have materials, lesson plans, and data collection instruments ready before initiating a lesson.
- Make sure the child is positioned appropriately, has his/her necessary prostheses and aids on, is not soiled, and is attending before beginning instruction.
- Be sure that the child has the language skills to understand what you are communicating and can provide you with feedback. Control introduction of new vocabulary.
- Go from the simple to the complex. Skills should be sequenced to allow the child to build on 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 or is learning, 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. Children with severe disabilities learn at a slower rate and therefore be aware that a small gain can be a major step toward the accomplishment of a task.

- Encourage attempts at new tasks, creativity, and curiosity.

- Encourage pride in performance through displays of work, rewards, praise, products to take home. Perfection is not important, only the student's best efforts.

- 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, supported work employment, and/or independent community employment.

- Allow enough time for the child to respond. Children with severe disabilities may need more time to control their bodies or cognitive or neurologically arrive at a response. Be patient. Work on getting an accurate response first, then work on speed.

- If the child responds incorrectly or does not respond at all the teacher should use physical assistance or other forms of prompts that will enable the child to respond correctly.

The learning activities selected for students with severe disabilities are limited only by your imagination. You can create a vigorous, stimulating, enriching instructional environment for your students by conducting a thorough examination of their needs, integrating all relevant factors in your plans, and designing educational activities that carry your students toward independence and success.

APPENDIX A

CLASSROOM ASSESSMENT DEVICES

CLASSROOM ASSESSMENT DEVICES

Test	Age	Behaviors Assessed	Type	Measurement Obtained	Population
A Vision Guide for Teachers of Multihandicapped or Deaf-Blind Children	Any Age	Functional vision	Informal	Functional vision	Deaf-blind, Mentally handicapped, severe-profound
Balthazar Scales of Adaptive Behavior	Birth - independence	Section I: self-care (e.g., eating, dressing, toileting) Section II: social adaption	Formal	Adaptive behavior	Moderately, mildly retarded, severely/ profoundly handicapped persons
Behavior Characteristics Progression (BCP)	Birth - independence	59 behavior strands (e.g., heath, dressing, toileting, language, impulse control, and self-confidence)	Informal	Developmental age	Multihandicapped persons
Brigance Inventory of Early Development	Birth - 7 years	Psychomotor, self-help, speech & language development, general knowledge, language comprehension, and academic skills	Formal	Developmental age	Infants and children developmentally below 7 years
Callier Azusa Scale	Birth - 9 years	Motor, perceptual, and language development, daily living and socialization skills	Informal	Developmental age	Deaf-blind, multihandicapped, and severely/ profoundly handicapped persons
Central Wisconsin Colony and Training School's Education Assessment Device	Preschool - school age	Self-care and language development skills	Informal	Functional level	Severely mentally retarded, cerebral palsied, deaf-blind, multihandicapped, hearing impaired, and visually impaired persons
Research Forms of Bayley Scales of Motor Development	Birth - 30 months	A. Mental Scale (e.g., sensory perceptual skills, discrimination) B. Motor Scale (e.g., body control and coordination) C. Behavior Record (e.g. attitudes, interests)	Formal	Developmental level	Cerebral palsied and other neurologically impaired infants
Denver Developmental Screening Test	Birth - 36 months	Personal-social, fine motor and gross motor, adaptive, and language skills	Formal	Developmental age	Normal infants and preschoolers
Developmental Activities Screening Inventory (DASI)	6-60 months	Cognitive and fine and gross motor skills	Formal	Developmental age	Deaf-blind and low functioning students
Developmental Programming for Infants and Young Children	Birth - 36 months	Perceptual, fine motor, cognitive, language, social/emotional, self-care, and gross motor skills	Formal	Developmental age	Normal and handicapped infants

Test	Age	Behaviors Assessed	Type	Measurements Obtained	Population
Developmental Spiral	Birth - 5 years	Fine and gross motor, self-help, language, and socialization skills	Informal	Developmental age	Multihandicapped children
Koontz Child Development Programs (includes curriculum)	Birth - 48 months	Gross and fine motor, social and language	Formal	Developmental age	Multihandicapped, visually impaired, and hearing impaired children
Learning Accomplishment Profile (LAP)	Birth - 33 months	Fine and gross motor, social, self-help, cognitive, and language skills	Formal	Developmental age	Handicapped children
A Manual for the Assessment of a Deaf-Blind Child	No age given	Personal, self-help, social development, gross and fine motor, language, and cognitive development	Informal	Functional level	Deaf-blind children
The Murdoch Center C & Y Program Library	Preschool - school ages	Self-help, residential, gross and fine motor, preacademic, and social skills	Formal	Developmental age and functional level	Severely disabled and developmentally disabled children
Pennsylvania Training	Birth - 5 years	Sensory development, activities of daily living, communication, perceptual, cognitive, and social interaction skills	Informal	Developmental age	Normal and handicapped children
The Portage Project Checklist (includes curriculum)	Birth - 5 years	Cognitive, self-help, motor, language, and socialization skills	Informal	Developmental age	Multihandicapped ,physically handicapped, and visually impaired children
Southern California Sensory Integration Tests	4 - 10 years	Space visualization, figure/ground, perception in space, design copy, imitation of postures, motor accuracy, kinesthesia, manual form perception, finger identification, graphesthesia, localization of tactile stimuli, double tactile perception, crossing midline of body, bilateral motor coordination, right/left discrimination, standing balance (eyes open and closed)	Formal	Functional level	Children with perceptual/motor problems and sensory integrative dysfunctions
The Assessment Inventory for Severely Handicapped Children (TARC)	Adolescence - adulthood	Self-help, motor, communication, and social skills	Formal	Developmental age	Severely handicapped adolescents and adults

Test	Age	Behaviors Assessed	Type	Measurement Obtained	Population
Uzgiris and Hunt's Scales of Psychological Development	Birth -	Scale I: development of visual pursuit and object permanence Scale II: development of means for obtaining desired environmental events Scale III: development of imitations (i.e., vocal and gestural) Scale IV: development of operational causality Scale V: construction of object relations in space Scale VI: development of schemes for relating to objects	Formal	Cognitive functional skills	Severely handicapped infants

APPENDIX B

CURRICULUM
SAMPLE CURRICULA
CURRICULUM RESOURCES
EDUCATIONAL MATERIALS AND RESOURCES

CURRICULUM

A good source of curriculum information can be obtained by writing the Technical Assistance Development System (TADS), University of North Carolina, 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 child with disabilities.

Suggested Steps to Follow When Determining a Student's Curriculum Plan:

1) Divide the curriculum into areas such as "Home skills," "Leisure-Recreation," "Community," or "Vocational."

2) Determine the environments of the student (e.g., dormitory, home, bus, school).

3) Distinguish any sub-environments (e.g., the school environment is broken down into the classroom, cafeteria, hallway,).

4) Determine the skills and activities that the student will perform in each separate environment (e.g., read books, transfer between classes, eat lunch).

5) Determine the skills needed to perform an activity (e.g., eating lunch requires locating cafeteria, getting food, using utensils).

General Suggestions for an Effective Teaching Plan:

- Be aware that activities and materials should be functional for the student.
- Teach skills and activities in the environments they are to be performed.
- Integrate skills and teaching into daily routines not just structured class periods.
- Encourage integration with non-disabled peers.
- Collect data on student performance on a regular basis.
- Encourage a student to participate in as much of an activity as he/she is capable.

General Suggestions for Adapting Instructional Programs:

- Select appropriate environments.
- Break down skills and activities needed for a task.
- Assess student's abilities.
- Identify and prioritize skills that are missing or require assistance.
- Develop instruction plan to teach the delinquent skills.
- Provide personal assistance (even long-term if necessary if the skill is something the student cannot master with direct teaching or adaptions).
- Modify a skill or activity's sequence, time periods, occurrence, or components.
- Use adaptive devices and aids.
- Modify environments (both physical and social).

SAMPLE CURRICULA

The following are recommended exemplary curricula from the results of two national field based surveys conducted by the Indiana Department of Education, Division of Special Education. Each survey consisted of forms being sent to over 800 locations nationwide. Respondents included states' department of education, universities, schools, community agencies, and special projects. The first survey was done in 1987 with 248 guides reported as exemplary and again in 1989 when 108 guides were reported. Included here are some of the curricula for severely/profoundly mentally handicapped, and multiply handicapped. The listing shows the title; source; development date (if known); prices at the time of the surveys (if known); and if it is recommended for severely/profoundly mentally handicapped (S/P) or multiply handicapped (MH).

- The Activities Catalog: An Alternative Curriculum for Youth and Adult with Severe Disabilities; Brookes Publishing Co., P.O. Box 10624, Baltimore, MD 21285-0624; 1987; S/P, MH.

- Activities for Daily Living; DuPage/West Cook, 1464 S. Main St., Lombard, IL 60148; 1985; MH.

- Adapted Physical Education for the Severely Handicapped; Developmental Training Center, 2853 East 10th Street, Bloomington, IN 47405; 1978; $4.60; S/P, MH.

- Adaptive Behavior Curriculum Vol. I and II; Paul Brookes Publishing, P.O. Box 10624, Baltimore, MD 21285-0624; 1981, 1982; $17.95, $18.95; S/P, MH.

- Adaptive Feeding Curriculum; Kirk Center-NW Special Education, 520 S. Plum Grove Road, Palatine, IL 60067; 1985; $7; S/P, MH.

- Adaptive Living Skills Curriculum; DLM Teaching Resources, One DLM Park, Allen, TX 75002; 1989; $200; S/P, MH.

- Adaptips: Curriculum Adaptations for Deaf-Blind: The Sensorimotor Period; Department of Special Education, College of Education, University of Kentucky, 105 Taylor Education Building, Lexington, KY 40506; 1985; S/P, MH.

- Art for the Handicapped; S.C. Department of Education, Columbia, SC; 1976; S/P, MH.

- Awareness and Inservice Manual for Integration (AIM); ERIC EDRS, 242182 Beckstead, ERIC/CEC, Reston, VA; 1983; $13; S/P, MH.

- BCP (Behavioral Characteristics Progression); VORT Corp., P.O. Box 60312, Palo Alto, CA 94306; $12.95 (+5 method books at $27.95 each); S/P, MH.

- The Carolina Curriculum for Handicapped Infants and Infants at Risk; Paul H. Brookes Publishing Co., P.O. Box 10624, Baltimore, MD 21285-0624; 1986; $29.95; S/P, MH.

- Classroom Management; Fayette County Schools, Dept of SPSAP, 701 E. Main Street, Lexington, KY 40502; 1986; $20; S/P, MH.

- Communication Placement Assessment for Children with Severe Handicaps; Teaching Research Publications, 345 N. Monmouth Ave., Monmouth, OR 97361; 1984; $3/$22.50: S/P, MH.

- Community Living Skills Screening Test and Remediation Manual; Mid Nebraska Mental Retardation Services, 522 East Side Blvd., P.O. Box 1146, Hastings, NE 68901; 1980; $35; S/P, MH.

- Community Vocational Training for Handicapped Youth; San Francisco State University, Department of Special Education, 1600 Holloway Ave., San Francisco, CA 94132, c/o Dr. Gaylord-Ross; no cost; S/P.

- A Curriculum for Profoundly Handicapped Students; Aspen Publishers, Inc., 1600 Research Blvd., Rockville, MD 20850; 1986; S/P, MH.

- Curriculum for the Trainable Mentally Handicapped and Severe/Profound; NW Suburban Special Education Organization (NSSEO), 799 W. Kensington Road, Mt. Prospect, IL 60056; 1988; $15; S/P, MH.

- Curricula Processes for the School and Community Integration of Severely Handicapped Students; Northern Illinois University, LDSE, DeKalb, IL 60115; 1983; S/P, MH.

- Curriculum for Multiply Handicapped Hearing Impaired Students; Northwestern Illinois Association, 245 W. Exchange St., Sycamore, IL 60178; $30; MH.

- A Curriculum for Profoundly Handicapped Students: The Broward County Model Program; Aspen Publishers, Inc., P.O. Box 6018, Gaithersburg, MD 20877-9970; 1986; $73; S/P.

- Curriculum for Severely/Multiply Handicapped; KCK Public Schools, 3040 State Ave., Kansas City, KS 66102; $25; S/P, MH.

- Curriculum Guide for a Secondary Vocational Resource Program; East Baton Rouge Parish School Board, P.O. Box 2950, Baton Rouge, LA 70821; 1985; $20; MH.

- Daily Living Curriculum for Handicapped Adults; Materials Development Center, University of Wisconsin-Stout, Menomomie, WI 54751; 1978; $15; S/P.

- Developmental Teaching of Children; DTC, 2853 E. 10th St., Bloomington, IN 47405; 1985; $7; S/P, MH.

- Developmental Training Program Curriculum and Transition Guide; Educational Service Unit #9, P.O. Box 2047, Hastings, NE 68901; 1986; $5; S/P, MH.

- Developmental Therapy; University Park Press 233 East Redwood St., Baltimore, MD 21202; 1975; $18; S/P.

- Early Childhood Resource Manual; Indiana Department of Education, Division of Special Education, Room 229, State House, Indianapolis, IN 46204-2798; 1986; no charge; S/P, MH.

- Exceptional Child Education Curriculum K-12: Activities for Daily Living and Prevocational Skills; Jefferson Co. Public Schools, 4409 Preston Highway, Louisville, KY 40213; 1984; $4.50-$11; S/P, MH. (Other curriculum areas also available: Assistive Devices, Communication and Language, Language Arts, Leisure/Recreation, Motor Skills, Personal/Social Behavior, Reading, Science, Self Help, and Social Studies.)

- Exceptional Child Education Skills Continuum K-12; Jefferson Co. Public Schools, 4409 Preston Highway, Louisville, KY 40213; 1984; $7.50; S/P, MH.

- Exceptional Children; Merrill Publishing Co., 1300 Alum Creek Drive, Box 508, Columbus, OH 43216; 1988; $30; S/P, MH.

- First Steps: A Transition Model for Professionals; Virginia Department of Education, Box 6-Q, Richmond, VA 23216-2060; 1987; no charge; S/P, MH.

- Focus (Fundamental Objectives Constituting Useful Skills); CESA 5, 626 E. Slifer St., Portage, WI 53901; 1986; $20; MH.

- Functional Curriculum Guide; San Diego City Schools, 4100 Normal Street, San Diego, CA 92103; 1988, $26; S/P, MH.

- Garland Independent School District Special Education Curriculum Guide; GISD, Special Education Department, 1225 Beverly Drive, Garland, TX 75040; 1986; S/P, MH.

- General Instructional Guidelines; Intermediate District #287, 1820 N. Xenium, Plymouth, MN 55441; 1986; S/P, MH.

- Guide to Work and Independent Living Training - An Assessment Guide; Education Service Center, Region 20, 1314 Hines, San Antonio, TX 78208; 1986; $3; S/P, MH.

- Guidelines for NU-VUE-CUE; R.D. Clark, Inc., Box 22, Bowling Green, IN 47833; 1979-1981; $25; MH.

- Guidelines for Using Support Services in Educational Programs for Students with Moderate, Severe, Multiple Handicaps; School Association for Special Education, 421 N. County Farm Road, Wheaton, IL 60187; 1986; S/P, MH.

- Hawaii Early Learning Profile (HELP); VORT Corporation, Palo Alto, CA 94306; 1988; Birth to 3.

- Independent Living Skills Observation Checklist; Education Service Center, Region 20, 1314 Hines, San Antonio, TX 78208; 1984; $6; MH.

- Indiana Home Teaching System; DTC, 2853 E. 10th St., Bloomington, IN 47405; 1983; $87; S/P, MH.

- Individual Student Community Life: Life Skill Profile System for Severely Handicapped Students; DeKalb Co. Special Education Association, 4418 Maple, Courtland, IL 60112; $13; S/P, MH.

- Individualized Functional Curriculum Assessment Procedure for Students with Moderate to Severe Handicaps; University of Illinois, Department of Special Education, 288 Education Bldg, 1310 S. 6th St, Champaign, IL 61820; 1986; $8; S/P, MH.

- Infant Homebound Curriculum; Marshall-Starke Development Center, 1901 Pidco Drive, Plymouth, IN 46563; 1984; $5; S/P.

- Insite Model - Home Based Program for Multihandicapped Sensory Impaired Children; HOPE, Inc., 1780 N. Research Park Way, Suite 110, N. Logan, UT 84321; 1983; $142; S/P.

- Inventory Process for Social Interaction; ERIC Drs #242181, ERIC/CEC, 1920 Association Drive, Reston, VA 22091; 1983; $15; S/P, MH.

- Ivymount DISC (Database IEP School Curriculum); Ivymount School, 11614 Seven Locks, Rd. Rockville, MD 20854; $35; MH.

- Kansas Individualized Curriculum Sequencing Model; ASIEP Education Co., P.O. Box 12147, Portland, OR 97212; 1985; $20; S/P.

- Kingsway's Comprehensive Curriculum Guide; Kingsway Learning Center, 144 Kings Highway, Haddenfield, NJ; 1988; $25; MH.

- Kirk Curriculum for Trainable Mentally Handicapped: Severely/Profoundly Mentally Handicapped, Multiply Handicapped; Kirk Center, 520 S. Plum Grove Road, Palatine, IL 60067; 1981; S/P, MH.

- Learning Accomplishment Profile (revised edition); Kaplan Press, P.O. Box 25408, Winston-Salem, NC 27114; 1981; $5; S/P.

- Leisure Education for the Handicapped; College-Hill Press, 4284 41st Street, San Diego, CA 92105; 1984; $18.50; S/P, MH.

- Life After (Your School): A Career Decision-Making Handbook; Project Learn, P.O. Box 220, East Lime, CT 06333; 1984; MH.

- Life Skills Curricula Framework; MD State Department of Special Education, 200 W. Baltimore St., Baltimore, MD 21201; 1986; no cost; S/P, MH.

- Living and Working Independently, Volume I and II; Ohio Department of Mental Retardation, Room 1275, 30 East Broad St., Columbus, OH 43215; 1982; $6/$7; S/P.

- Logan Curriculum; Logan Industries, 1234 Eddy Street, South Bend, IN 46624; 1986; S/P, MH.

- Longitudinal Listing of Chronological Age-Appropriate and Functional Activities for School Aged Moderate and Severely Handicapped Students; Madison Metropolitan School District, Madison, WI; S/P.

- The Los Lunas Curricular System: A Criterion Referenced Assessment for Severely Handicapped; State of New Mexico Department of Health and Environment, Education Department, Los Lunas Hospital and Training School, Box 1269, Los Lunas, NM 87031; 1983; $15; S/P, MH.

- Mainstreaming the Visually Impaired, Orthopedically Handicapped, Hearing Impaired; Purdue University, continuing Education, Stewart Center, Purdue University, W. Lafayette, IN 47909; 1985; $75; MH.

- Music Techniques with Severely Profoundly Handicapped Students; Sue Moreland, VSA Indiana, 1605 E. 86th St., Indianapolis, IN 46240; 1986; $3; S/P.

- No-Go-Tell! Child Protection Curriculum for Young Disabled Children; The Lexington Center, Inc., 30th Avenue and 75th Street, Jackson Heights, NY 11370; 1986; $320; MH.

- Normalization and What It Means For Those Working with Disabled Children; Education Service Center Region 20, 1314 Hines, San Antonio, TX 78208; 1987; $5.50; S/P, MH.

- Northville Public Schools/Special Education Program; Northville Public Schools, 501 W. Main, Northville, MI 48167; 1982; $50; S/P, MH.

- Northville Special Education Curriculum; Wayne Community School District, Bryant School, 18000 Merriman, Livonia, MI 48152; 1986; $50; S/P, MH.

- NU-VUE-CUE Computer Disk for Apple; R.D. Clark, Inc., Box 22, Bowling Green, IN 47833; 1986; $50; MH.

- PennStar Master Curriculum; PennStar Support Group, Box 213, Lewisburg, PA 17837; 1984; $5; S/P, MH.

- Portage Guide to Early Education; Portage Project, Cooperative Educational Service Agency (CESA) 5, 626 E. Slifer St., Portage, WI 53901; 1976 (revised); $50; S/P, MH.

- Preschool Curriculum; DuPage/West Cook, 1464 S. Main St., Lombard, IL 60148; 1985; MH.

- Preschool Curriculum; Marshall-Starke Development Center, 1901 Pidco Drive, Plymouth, IN 46563; 1984; $5; S/P.

- Prevocational Tasks - An Entry Level Skills Training Program for the Severely Handicapped; Edmark Corporation, P.O. Box 3903, Bellevue, WA 98009; 1985; $18; S/P.

- Project Aware; Evansville-Vanderburgh School Corp., 1 S.E. Ninth St., Evansville, IN 47708; 1981; $10; S/P, MH.

- Project Perform Performance Objectives Catalog; Ingham Intermediate School District, 2630 W. Howell Road, Mason, MI 48854; 1979; $120; S/P, MH.

- Project Reach Manual; Eric Drs #ED242185, ERIC/CEC, 1920 Association Drive, Reston, VA 22091; 1983; $9; S/P, MH.

- Reach Out and Teach: Reachbook and Parent Handbook; American Foundation for the Blind, 15 W. 16th St., New York, NY 10011; 1985; $25; MH.

- Rockford Infant Development: Evaluation Scales; Scholastic Testing Service, 480 Meyer Rd., Bensenville, IL 60106; 1979; $36; S/P, MH.

- SMI and SXI Curriculum; Washtenaw Intermediate School District, 1819 S. Wagner Road, Box 1406, Ann Arbor, MI 48106-1406; 1986; $40; S/P, MH.

- Sequential Skills Inventory for Individualized Program Planning; Evansville-Vanderburgh School Corp., 1 S.E. Nineth St., Evansville, IN 47708; 1984; $50; S/P, MH.

- Smile Curriculum: The TMR Skills Program; Carob Publication, P.O. Box 6091, Gadsden, AL 35901; 1984; $105; S/P.

- Social Readiness Program; Portland Habilitation Center, Inc., 3829 S.E. 74th Ave., Portland, OR 97206; 1982; $22; S/P, MH.

- Special Education Career/Vocational Program/Westport; Handipress, Staples High School, Westport, CT 06490; 1986-revised; no cost; S/P, MH.

- Special Education Curriculum; Washtenaw Intermediate School District, Special Education Department, 1819 S. Wagner Rd, Box 1406, Ann Arbor, MI 48106; 1984; $100; S/P, MH.

- Special Education Curriculum Guide - Riverside County Office of Education; Riverside County Office of Education, P.O. Box 868, Riverside, CA 92502; 1986; $2; S/P, MH.

- Special Education Developmental Program for the Young Handicapped Child; Houston Independent School District, 3830 Richmond Ave., Level 4 West, Houston, TX 77027; 1985; $8; S/P.

- Special Studies for Special Students; Pueble School District No. 70, 24951 E. Highway 50, Pueblo, CO 81066; $5; S/P.

- Survival Skills for the Student with Learning Disabilities; Iowa ACLD, 313 N. 13th, Indianola, IA 50125; 1978; $10; MH.

- Syracuse Community-Referenced Curriculum Guide for Students with Moderate and Severe Disabilities; Paul Brookes Publishing Co., P.O. Box 10624, Baltimore, MD 21285-0624; 1989; S/P.

- Syracuse Curriculum Revision Manual: A Group Process for Developing a Community-Referenced Curriculum Guide; Paul Brookes Publishing Co. P.O. Box 10624, Baltimore, MD 21285-0624; 1989; S/P.

- Syracuse Community Based Curriculum; NE Indiana Special Education Coop., 112 S. Orchard, Kendallville, IN 46755; MH.

- System Fore; Foreworks, Box 9747, North Hollywood, CA 91609; $90; MH.

- System for Successful Interagency Collaboration in the Transition Process; Northern Illinois University, LDSE, Northern Illinois University, DeKalb, IL 60115; 1986; S/P.

- Talking Pictures-Community Living, Daily Living, and Survival Living Personal Needs Passports; Crestwood, P.O. 04606, Milwaukee, WI 53204-0606; 1984-1987; $20/$35; S/P, MH.

- Target on Music; Glenbrook Day School, 11614 Seven Locks Rd., Rockville, MD 20854; 1982; $25; S/P, MH.

- Taxonomy of Behavioral Objectives for Habilitation of Mentally Handicapped Persons; Portland Habilitation Center, Inc., Publication, 3829 S.E., 74th Ave., Portland, OR 97206; 1982; $42; S/P, MH.

- Teacher Guide for Prevocational Education in the Middle School; East Baton Rouge Parish School Board; P.O. Box 2950, Baton Rouge, LA 70821; 1985; $20; MH.

- Teaching Curriculum Goals in Routine Environments; CONE Learing Systems, 18415-81 Avenue, Edmonton, Alberta, Canada, TET1A6, (403) 481-6687; $25; S/P, M/H.

- Teaching Expressive and Receptive Language to Students with Moderate and Severe Handicaps; PRO-ED, 5341 Industrial Oaks Blvd, Austin, Texas, 78735; 1985; S/P, M/H.

- Teaching Functional Academics; Pro-Ed, 5341 Industrial Oaks Blvd., Austin, TX 78735-8898; 1982; $18; MH.

- Teaching the Moderately and Severely Handicapped - Vols. I, II, III; Pro-Ed, 5341 Industrial Oaks Blvd., Austin, TX 78735-8898; 1985; $19/$18; MH.

- Teaching the Moderately and Severely Handicapped: Curriculum Objectives, Strategies, and Activities; University Park Press; 300 N. Charles St., Baltimore, MD 21201; 1985-revised; $20; S/P.

- Therapy Education Approach Method; NW Special Education, 500 S. Plum Grove Road, Palatine, IL 60067; 1985; S/P, MH.

- Thesaurus of Instructional Objectives for Handicapped Pupils; Fayette County Public Schools, Department of Special Pupil Services, 701 E. Main Street, Lexington, KY 40502; 1984; $30; S/P, MH.

- Travel Training Program: A Guide for Teaching Moderately Handicapped Students To Ride A Public Bus; Jefferson Co. Public Schools, 4409 Preston Highway, Louisville, KY 40213; 1980; $6; S/P, MH.

- Washington State Cooperative Curriculum (WSCC); Maxin School, 15230 15th Avenue, N.E., Seattle, WA 98155; 1986; S/P, MH.

- Work and Independent Living Training Manual (Vol I and II); Education Service Center Region 20, 1314 Hines, San Antonio, TX 78208; 1983; $10/set; S/P, MH.

- Zero to Three Core Curriculum (3rd Edition); College of Education, 27 Horrabin Hall, Western Illinois University, Macomb, IL 61455; 1983; S/P, MH.

The surveys also covered:

Mildly and Moderately Mentally Handicapped
Physically Handicapped
Speech, Hearing and Language
Blind/Visually Impaired
Infant
Affective Education
Art
Career/Vocational
Down's Syndrome
Evaluation
Mainstream
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Paraprofessionals
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Respite Care
Science
Sex-Abuse Prevention
Social Studies
Technology
Travel
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Adult Day Activities
Autism
Deaf/Blind
Dyslexia
Home Economics
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Parents
Reading
Religious Education
Rural
Self-Help
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Spelling
Transition

For a complete listing of the surveys and other publications, contact:

Instructional Materials Center
Division of Special Education
Indiana Department of Education
229 State House
Indianapolis, IN 4604-2798
(317) 232-0579

CURRICULUM RESOURCES

PUBLISHING COMPANIES AND ORGANIZATIONS:

Paul H. Brookes Publishing Co.
P.O. Box 10624
Baltimore, MD 21285-9945
(800) 638-3775
Their catalog offers many books and materials.

TASH: The Association for Persons with Severe Handicaps
11201 Greenwood Ave., N.
Seattle, WA 98133
(206) 361-8870
(206) 361-0113
The association can provide a listing of TASH members to contact who have knowledge and expertise in the area of curriculum and instructional design. It is also a good source of information, referrals, and publications in the area of severe disabilities.

California Research Institute on Integration of Students with Severe Disabilities (CRI)
San Francisco State University
14 Tapia Drive
San Francisco, CA 94132
(415) 338-7847
Contact them for information, publications, and materials on the integration of students with severe disabilities.

Center on Human Policy
Syracuse University
200 Huntington Hall
Syracuse, NY 13244-2340
(315) 443-3851

Teaching Research Division
Western Oregon State College
345 North Monmouth Ave.
Monmouth, OR 97361
Contact them for a listing of their publications.

JOURNALS:

Education and Training in Mental Retardation

Exceptional Children

Teaching Exceptional Children
The Council of Exceptional Children, 1920 Association Dr., Reston, VA 22091-1589.

Journal of The Association for Persons with Severe Handicaps
The Association for Persons with Severe Handicaps (TASH), 7010 Roosevelt Way, N.E., Seattle, WA 98115.

Teacher Education and Special Education
Special Press, Suite 2107, 11230 West Avenue, San Antonio, TX 78213.

Journal of Special Education

Journal of Visual Impairment and Blindness
American Foundation for the Blind, 15 W. 16th St., New York, NY 10011

BOOKS:

The Activities Catalog: An alternative curriculum for youth and adults with severe disabilities
By: B. Wilcox, and G. T. Bellamy
Publisher: Paul H. Brookes Publishing Co., P.O. Box 10624, Baltimore, MD, 1987.

Children with Handicaps: A Medical Primer
By: Mark L. Batshaw M.D., Yvonne M. Perret, M.S.W.
Publisher: Paul Brookes, P.O. Box 10624, Baltimore, MD

Communication Curriculum for Children and Students with Severe Handicaps
By: Kathleen Strmel-Campbell, Nancy Johnson-Dorn, Judy C. Guida, and Tom Udell
Publisher: Teaching Research Publications, 345 N. Monmouth Ave., Monmouth, OR 97361

Community-Based Curriculum: Instructional Strategies for Students with Severe Handicaps
By: M. A. Falvey
Publisher: (2nd edition) Baltimore: Paul H. Brookes Publishing Co., P.O. Box 10624, Baltimore, MD, 1989

Comprehensive Communication Curriculum Guide
By: M.D. Klein, S. V. Wulz, M. K. Hall, L. J. Waldo, S. A. Carpenter, D. A. Lathan, S. P. Myers, T. Fox, and A. M. Marshall,
Publisher: Kansas Early Childhood Institute, Lawrence, KS, 1981

Curriculum Considerations in Inclusive Classrooms - Facilitating Learning for All Students
By: Susan Stainback and William Stainback
Publisher: Paul H. Brookes Publishing Co., P.O. Box 10624, Baltimore, MD, 1991

Design of High School Programs for Severely Handicapped Students
By: B. Wilcox, and G. T. Bellamy
Publisher: Paul H. Brookes Publishing Co., P.O. Box 10624, Baltimore, MD, 1982

Education All Students in the Manistream of Regular Education

By: S. Stainback, W. Stainback, and M. Forest (Eds.)
Publisher: Paul H. Brookes Publishing Co., P.O. Box 10624, Baltimore, MD, 1989

Educational Programs for Students with Severe Handicaps (Vol. XIV, pp. 43-47)
By: L. Brown, M. Sweet, B. Shiraga, J. York, K. Zanella, P. Rogan, and R. Loomis (Editors)
Publisher: Madison Metropolitan School District, Madison, 1984

Impact - A Functional Curriculum Handbook for Students with Moderate to Severe Disabilities
By: Richard S. Neel and Felix Billingsley
Publisher: Paul H. Brookes Publishing Co., P.O. Box 10624, Baltimore, MD, 1989

Individualized Curriculum Sequence and Extended Classroom Models for Learners Who Are Deaf and Blind
By: E. Helmstetter, M. C. Murphy-Herd, S. Roberts, and P. D. Guess
Publisher: The Kansas Individualized Curriculum Sequencing Project, University of Kansas, Lawrence, KS, 1984

Innovative Program Design for Individuals with Dual Sensory Impairments
By: L. Goetz, D. Guess, and K. Stremel-Campbell, (Editors)
Publisher: Paul H. Brookes Publishing Co., P.O. Box 10624, Baltimore, MD, 1987

Integration Strategies for Persons with Severe Handicaps
By: R. Gaylord-Ross (Ed.)
Publisher: Paul H. Brookes Publishing Co., P.O. Box 10624, Baltimore, MD, 1989

Integration of Students with Severe Disabilities in Regular Schools
By: S. Stainback, and W. Stainback
Publisher: Council for Exceptional Children, 1920 Association Drive, Reston, VA 22091-1589, 1985

Longitudinal Leisure Skills for Severely Handicapped Learners: The Ho'onanea Curriculum Component
By: B. B. Wuerch, and L. M. Voeltz
Publisher: Paul H. Brookes Publishing Co., P.O. Box 10624, Baltimore, MD 1982

Methods of Instruction for Severely Handicapped Students
By: W. Sailor, B. Wilcox, and L. Brown
Publisher: Paul H. Brookes Publishing Co., P.O. Box 10624, Baltimore, MD, 1980

Persons With Profound Disabilities
By: Freda Brown, and Donna Lehr
Publisher: Paul H. Brookes Publishing Co., P.O. Box 10624, Baltimore, MD, 1982

Program Models for Mainstreaming: Integrating students with moderate to severe disabilities
By: M. S. Berres and P. Knoblock (Eds.)
Publisher: Aspen Publishers, 200 Orchard Ridge Dr., Gaithersburg, MD 20878, 1987

Public School Integration of Severely Handicapped Students: Rational issues and progressive alternatives
By: N. Certo, N. Haring, and R. York (Editors)
Publisher: Paul H. Brookes Publishing Co., P.O. Box 10624, Baltimore, MD, 1984

Severely Handicapped Students: An Instructional Design
By: W. Sailor, and D. Guess
Publisher: Houghton Mifflin, Boston, MA, 1983

Strategies for Educating Students with Severe Handicaps
By: R. J. Gaylord-Ross, and J. F. Holvoet
Publisher: Little, Brown, Boston, MA, 1985

A Strategy for Developing Chronological Age Appropriate and Functional Curricular Content for Severely Handicapped Adolescents and Young Adults
By: L. Brown, M. B. Branston, S. Hamre-Nietupski, J. Pumpian, N. Certo, and L. Gruenewald
Publisher: Journal of Special Education, 13, 81-90, 1979

The Syracuse Community-Referenced Curriculum Guide for Students with Moderate and Severe Disabilities
By: A. Ford, R. Schnorr, L. Meyer, L. Davern, J. Black, and P. Depsey,
Publisher: Paul H. Brookes Publishing Co., P.O. Box 10624, Baltimore, MD, 1989

The Syracuse Curriculum Revision Manual: A group process for developing a community-referenced curriculum guide
By: R. Schnorr, A. Ford, L. Daverns, S. Park-Lee, and L. Meyer
Publisher: Paul H. Brookes Publishing Co., P.O. Box 10624, Baltimore, MD, 1989

Systematic Instruction of Persons with Severe Handicaps (3rd ed.)
By: M. E. Snell
Publisher: Charles E. Merrill, Columbus, OH, 1987

The Teaching Research Curriculum for Moderately and Severely Handicapped: Gross and Fine Motor Skills
Publisher: Teaching Research Publications, 345 N. Monmouth, Monmouth, OR 97361

Transition From School to Work
By: Paul Wehman, M. Sherrill Moon, Jane M. Everson, Wendy Wood, J.Michael Barcus
Publisher: Paul H. Brookes Publishing Co., P.O. Box 10624, Baltimore, MD, 1988.

A Vision Guide for Teachers of Multi-Handicapped or Deaf-Blind Children
By: North Carolina Department of Public Instruction
Publisher: North Carolina Department of Public Instruction, Publications, 301 North Wilmington St., Raleigh, NC 27601-2825

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Cleveland, OH 44130
(216) 234-8833

Childcraft Education Corp.
20 Kilmer Road
P.O. Box 3081
Edison, NJ 08818-3081
(800) 631-5652

A Child's Place
141 North Oak Park Ave.
Oak Park, IL 60302
(312) 524-0550

Educational Activities
P.O. Box 392
Thousand Oaks, CA 91359

Educational Teaching Aids (ETA)
159 West Kinzie Street
Chicago, IL 60610
(312) 559-1400

Houghton Mifflin Company
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Winston-Salem, NC 27106
(910) 768-6868

Ideal School Supply Company
11000 S. Lavergne Ave.
Oak Lawn, IL 60453
(312) 425-0800

Kaplan Corporation
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Winston-Salem, NC 27103
(800) 334-2014

Kimbo Educational Company
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Long Branch, NJ 07740]

Lakeshore Curriculum Materials Co.
2695 E. Dominguez Street
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Carson, California 90749

Macmillian Publishing Company
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Riverside, NJ 08370

McGraw-Hill
1221 Avenue of the Americas
New York, NY 10020

Charles E. Merrill Publishing Company
1300 Alum Creek Drive
Box 508
Columbus, OH 43216

National Educational Association
1201 16th Street NW
Washington, D.C. 20036

Prentice-Hall Publishing Company
P.O. Box 47X
Englewood Cliffs, NJ 07632

Research Press
Box 317760
Champaign, IL 61820

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Chicago, IL 60631
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(704) 536-6933
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Special Child Publications
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Seattle, WA 98405

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Yankers, NY 10705

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Hingham, MA 02043

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(815) 398-1600

APPENDIX C

TOYS AND ACTIVITIES
TOY COMPANIES

TOYS AND ACTIVITIES

Here are some suggested toys to purchase or create, and activities to do with your students.

Abacus: Teach math preparation, word problems, eye-hand coordination, and sequencing.

Materials: A frame with beads strung on horizontal wires.

Activities: Practice counting by sliding beads across wire one at a time; teach simple addition and subtraction; divide beads onto two sides and practice concepts of more and less.

ABC Blocks/Pieces: Teach reading preparation, eye-hand coordination, and sequencing.

Materials: Blocks, magnets, chips, or 26 of any object (e.g., toy cars, plastic cups) with the letters A-Z printed on them.

Activities: Line pieces up in order A-Z (start off teaching a few at a time and build up to 26); learn to identify which letter is missing from a group; identify sounds and letters; trace shape of letters and copy onto paper; teach simple spelling.

ABC Shapes: Teach reading preparation, eye-hand coordination, grip, labeling, and visual sequencing and memory.

Materials: Plastic shapes of the alphabet.

Activities: Trace shapes with fingers (vocalizing motions); identify shape and sound of letters; line up in order; teach simple spelling.

Activity Toys: Teach gross and fine motor skills, eye-hand coordination, and cause and effect concepts.

Materials: Use toys with lots of buttons to press, levers to flip or turn, or doors to open which will result in a sound or action.

Activities: At first, manipulate the student's hand to activate each part and then let him/her do it independently; use appropriate words to describe actions (push, pull, turn); give the student instructions (one at a time; then build up) as to what action to do.

Alphabet Cards: Teach reading preparation, and visual discrimination.

Materials: Flash cards with the letters of the alphabet printed on them.

Activities: Learn to identify letters; match cards of two decks; identify letter shape and letter sound; first trace the shape of the letter with a finger (vocalize motions) and then move on to writing the letter on paper.

Alphabet Puzzle: Teach reading preparation, visual sequences and memory, and eye-hand coordination.

Materials: A puzzle where the pieces are similar in shape, lined up, and labeled in order with the letters of the alphabet (upper and/or lower case).

Activities: Identify letters and sounds; learn upper and lower case; learn order of letters (start off with first three and add more); learn ABC song.

Ball and Glove: Teach balance, motor planning, body awareness, visual tracking, and group play.

Materials: Purchase or make a ball and mitt set. The mitt needs velcro backing on it and the ball needs to be able to stick to the mitt. This makes it easier for the student to catch the ball.

Activities: Start off by first rolling the ball to the student's glove and then throw it; toss the ball directly at the mitt and then gradually have the student actually reach to catch it; play one-on-one or in a group.

Balls: Teach balance, motor planning and development, body awareness, sound awareness and discrimination, and visual spacing.

Materials: Balls of rubber, plastic, or fabrics. Vary size, texture, and weight. Balls with bells inside are best for children with visual impairments.

Activities: Bounce or throw a ball into a bucket or through a hoop, gradually increasing the distance; let the student throw at will or teach them to wait for a signal; have the student retrieve the balls; roll, bounce, catch, and toss balls either while sitting or standing.

Blocks: Teach visual discrimination, whole hand grip, eye-hand coordination, color and shape concepts, size discrimination, and imaginary play.

Materials: Blocks that vary by color, shape, and texture and can be made out of wood or plastic.

Activities: Stack, line up, fit together, sort, create pictures, or follow patterns; encourage the student to grasp, roll, and squeeze blocks.

Body Parts Puzzle: Teach labeling, eye-hand coordination, and body awareness.

Materials: Buy or make a puzzle of body parts out of wood, paper, or fabric.

Activities: Have the student identify, order, and match body parts to his/her own.

Colored/Patterned Cubes: Teach visual discrimination, memory, pincer grip, color, and form.

Materials: Cubes with different colors, patterns, or designs on the each side.

Activities: Match up patterns or create new designs; count; sort.

Connecting Toys: Teach eye-hand coordination, pincer grip, imaginary play, shape and color concepts, and sequencing.

Materials: Toys with pieces that connect or snap together.

Activities: Connect pieces to build shapes, or follow patterns; teach spatial relationships.

Crib Mobiles: Teach visual awareness and tracking, motor planning, and auditory awareness.

Materials: Buy or create mobiles that rotate with or without music. Secure a bar or rod with toys hung on it. The objects should face down or be angled depending on the student's location so he/she can see the most surface area of each object.

Activities: Encourage the student to follow movement with his/her eyes; encourage him/her to reach and grasp objects.

Dominos: Teach math preparation, solitary and group play, and pincer grip.

Materials: Dominos (traditional or with colors, shapes, or pictures). Can be purchased or made out of cardboard.

Activities: Match up number of dots, or designs; line up sequentially; play a game of dominos; line up dominos on side and knock the first one over so they fall down in order.

Dressing Dolls: Teach daily life skills and fine motor skills.

Materials: Dolls or books that have zippers, buttons, laces, snaps, and other dressing activities.

Activities: Introduce and teach one function at a time; match the action on the toy with a corresponding article of the student's (e.g., show how the zipper on the doll matches the zipper on the student's coat).

Floor Shapes: Teach motor planning, shape and color concept, eye-hand coordination, spatial relations, and body awareness.

Materials: Large colored pieces (12" or larger) made from plastic, vinyl, carpet scraps, or heavy paper in recognizable shapes (square, circle, diamond, star).

Activities: Talk about the shapes and colors; have student follow instructions for matching body parts to certain shapes or colors (e.g., put your foot on the red square); practice spatial relations (e.g., sit <u>on</u> the circle, place the star <u>under</u> the square).

Footstep Mats: Teach math preparation, balance, and sequences.

Materials: Pieces of vinyl, plastic, or paper cut out in shape of a footstep (or some other shape) with a number printed on each one. Can use the word, number, and/or dots.

Activities: Lay the mats down in order; step on each one in sequential order and the reverse; step by two's.

Lines/Shapes Flash Cards : Teach visual sequencing, eye-hand coordination, and reading readiness.

Materials: Buy or create flashcards printed with simple shapes and lines patterns.

Activities: Trace lines and shapes with a finger; copy onto paper with a pencil; recreate out of string; fill in any missing sections.

Magnetic Board: Teaches shape and color concepts, eye-hand coordination, imaginary play, and visual discrimination.

Materials: A magnetic board or surface and magnetic shapes, letters, numbers, or anything can have a magnet attached.

Activities: Group magnets by shape or color; design or copy patterns; tell stories using magnets as visual aids.

Matching Cards: Teach visual memory, labeling discrimination, and classification.

Materials: Buy or create flash cards where each pair of cards are the front/back, top/bottom, or opposites.

Activities: Match them up; talk about groupings.

The Maze: Teach visual sequencing, visual memory, pincer grasp, eye-hand coordination, dexterity, bilateral coordination, and color and shape concepts.

Materials: These are hard colored wires, arched, entwined, and twisted, attached at both ends onto a board. They are also called Roller Coasters, Waves, and Arches. Beads of various colors and shapes are along the wires.

Activities: Manipulate the beads along the wires; identify colors and size; practice counting aloud; learn concepts of up/down and over/under/through; encourage the student to switch hands; have the student communicate what he/she is doing.

Musical Instruments: Teach auditory discrimination, memory, hand grip, and eye-hand coordination.

Materials: Tambourine, bells, drum, triangle, horns, or any musical instrument. These can be bought or homemade (e.g., a can or oatmeal box with a piece of rubber or waxed paper on top is a drum, staple two paper plates together filled with beads/buttons/macaroni as a maraca, or use two pot lids for cymbals.)

Activities: Have the student play, model, create, or repeat rhythms; encourage him/her to do it independently or on cue; have the student identify instruments by sound.

Musical Tops: Teach visual awareness and auditory awareness.

Materials: Toys that rotate, play music, or spin.

Activities: Teach the student how to activate motion and music.

Nesting Toys: Teach size discrimination, eye-hand coordination, and sequencing.

Materials: A set of sized objects that nest together (e.g., barrels, dolls, boxes).

Activities: Have student fit objects together in order; line up sequentially by size; teach words to describe (e.g., big/bigger/biggest); stack by size.

Numerical Puzzles: Teach math preparation, sequencing, pincer grip, eye-hand coordination, and visual discrimination.

Materials: A puzzle where the pieces are similar in shape, lined up, and numbered in order.

Activities: Put the puzzle together in numerical order and reverse; read and say the numbers aloud; hand the student one piece at a time in random order and have him/her place it where it should go in order, adjusting as more pieces are added (start off with just a few pieces/choices at a time and build up).

Picture Cards: Teach labeling, sentence structure, classification, environmental awareness, and reading preparation.

Materials: Buy or create picture flash cards of familiar objects and/or scenes.

Activities: Match by function, sort by classification, discuss use or meaning of objects, pair up opposites, alike/not alike, sequences, or spatial relationships.

Pounding Blocks: Teach motor planning and visual discrimination.

Materials: Buy or make (wood or plastic) blocks that shapes can be pushed through by hand or hammered in with a mallet.

Activities: Have student hit specific colors or shapes on cue; alert the student to results of his/her pounding on a block; use different shapes so that each one has a specific and unique slot.

Puppets: Teach communication with meaning, group play, solitary play, and imaginary play.

Materials: Buy or create puppets with socks, paper bags, fabric, or other craft supplies.

Activities: Carry on conversations with the student and puppet; tell stories using the puppet as a prop; move the puppet around to teach spatial concepts such as up, down, and next to.

Push/Pull Toys: Teach locomotion, balance, motor planning, and visual attending and awareness.

Materials: Buy or create wheeled toys that have a handle for pushing or a string for pulling.

Activities: Either seating or standing, push/pull the toy to and from the student; allow the student to push/pull or walk with the toy; alert him/her to the reactions and movements as a result of his/her actions; have student follow a pattern or set course while pushing/pulling.

Puzzles: Teach visual discrimination, pincer grip, tactile stimulation, and communication skills.

Materials: Puzzles are not necessarily just picture jigsaw shape and design. They can be just a few pieces in interlocking simple or complex shapes, letters, numbers, or one piece per section.

Activities: Introduce the whole puzzle at once, removing and replacing one piece at a time and building from there; assemble the puzzle with a guide pattern and then without; talk about the parts of the picture to stimulate communication; use the puzzle pieces as drawing aids.

Rattles: Teach motor planning, gripping, auditory awareness, and visual tracking.

Materials: Purchase or make rattles that are easy to grasp, colorful or noisy, with moving pieces (not removable) of various textures. Create a rattle with containers (e.g., boxes or jars) filled with beads, stones, rice, pasta, or buttons. Colorful and loud pieces offer visual and auditory stimulation.

Activities: Shake, move, and "rattle" whole thing and pieces; pass from hand to hand; identify shapes and colors.

Recorded Sounds: Teach auditory awareness and discrimination, and environmental awareness.

Materials: Audio cassette of everyday sounds (e.g., dog barking, man's/woman's voice, telephone, car, bells, or school/animal/human noises) and matching picture cards or scenes. These both can be purchased or homemade.

Activities: Have the student identify a picture from the cassette (start with a few choices and build up); imitate sounds; create the sound from a picture.

Ring Toss: Teach balance, motor planning, and visual tracking.

Materials: Ring sets and targets pins (e.g., soda pop bottles, bowling pins, wooden dowels on a board). Make sure the rings are wide enough to easily fit over the targets.

Activities: Have the students aim and watch the rings after they are tossed and not just throw randomly; start off close to the target and gradually increase the distance.

Rubber Animals: Teach labeling, meaning, imaginary play, and environmental awareness.

Materials: Large (8 inches or larger) rubber or plastic animals.

Activities: Have the student touch and feel the animal shapes; teach and imitate sounds; identify and name; sort by size and shape; match and compare body parts.

Scales: Teach weight and size concepts, cause and effect, and math preparation.

Materials: A balance scale and different materials to weigh (whole objects and sand/ marbles/blocks).

Activities: Weigh objects and fill the scale with different materials and amounts; compare the weight of known objects; teach words and concepts of heavy/light, more/less; practice counting.

Shape Sorting Box: Teach color and shape concepts, visual and tactile discrimination, grip, eye-hand coordination, and labeling.

Materials: A box or container with different shaped holes/slots that correspond to matching blocks of the same shape and size.

Activities: Have the student take a shape and find the appropriate slot; from the shape of the slot, find the appropriate piece that will fit; follow sequential instructions of which shapes to place; name the shapes and colors.

Stringing: Teach visual sequencing, eye-hand coordination, fine motor skills, cognitive sequencing, shape and color concepts, dexterity, and tactile and visual discrimination.

Materials: Colored or shaped beads, cereal, thread spools, pasta, or anything that has a large enough hole String onto thread, yarn, straws, or shoe laces.

Activities: Have the student match a printed pattern or follow verbal directions to create a design; teach words to describe actions (e.g., pull, through); can build up to "sewing" shapes together.

Tactile Number Cards: Teach math preparation, eye-hand coordination, and tactile discrimination.

Materials: Flash cards with numbers that are recognizable by touch. The numbers can be raised, or created with glued on sand, yarn, wire.

Activities: Trace the numbers and verbalize the motions (e.g., the number 7 is "over and down"); learn the words for each number; learn to identify the shape from the word and the word from the shape.

Textured Toys: Teach tactile feeling, stimulation, and awareness, and gripping.

Materials: Toys, balls, or rubber animals with textures.

Activities: Have the student feel, stroke, pull, or squeeze; teach the words to identify and describe the textures (e.g., soft, hard, rough).

Texture Pieces: Teach tactile stimulation, awareness, and discrimination, and classification.

Materials: Cut-out squares or circles of different materials (e.g., brocade, felt, plastic, rubber, denim, sandpaper, foam, fur).

Activities: Have the student match and group pieces according to texture; match to a pattern; learn words to describe textures; associate pieces with an object of the same material (e.g., plastic piece is same as a shower curtain).

Toy Clocks: Teach math preparation, sequencing, and fine motor control.

Materials: A toy or clock that the hands can be moved manually.

Activities: Learn and identify numbers 1-12 and 1-60; learn the concept that clock hands move clockwise; teach the student how to tell time; associate times on clock with activities in the student's day.

TOY COMPANIES

These companies offer many toys that are designed to encourage development as well as entertain. The packaging will often explain exactly which skills or developmental age the toy is geared towards. Most of these brands can be found in major toy stores.

Ambi

Baitat, Inc.

Brio Scanditoy Corporation

Childcraft

Discovery

Fisher-Price

Gabriel

Galt Toys

International Playthings, Inc.

Johnson and Johnson

Kiddicraft

Kouvalias

Playskool

Reeves International

Small World Toys

Tomy

APPENDIX D

NATIONAL RESOURCES

NATIONAL RESOURCES

GENERAL INFORMATION AND ADVOCACY:

American Association of University Affiliated Programs for Persons with Developmental Disabilities (AAUAP)
1234 Massachusetts Avenue, NW, Suite 813
Washington, D.C. 20005
(202) 737-1511

American Coalition of Citizen's with Disabilities
1012 14th St., N.W., Suite 901
Washington, D.C. 20005
(202) 628-3470
PUBLICATION: Newsnet (monthly)
A national non-profit membership coalition representing the needs of all disabled persons in the country.

American Foundation for the Blind (AFB)
15 West 16th Street
New York, NY 10011
(212) 620-2000
(800) 232-5463
PUBLICATIONS: Journal of Visual Impairment and Blindness; AFB News (quarterly); Catalog of Publications; Products for People with Visual Problems; Directory of Services for Blind and Visually-Impaired Persons in the U.S.; AFB Annual Report.
An organization that develops and implements public policy and legislation, informational and educational programs, diversified products, and quality services for persons who are blind or visually impaired.

California Research Institute Integration of Students with Severe Disabilities

14 Tapia Drive
San Francisco, CA 94132
(415) 338-7847
Their research emphasis is on integrating severely disabled students into regular classrooms and how to modify and adapt curriculum. They publish a products list of information, curriculum, and aids.

Children's Defense Fund (CDF)
122 C Street, NW
Washington, D.C. 20001
(202) 628-8787
Conducts research, and monitors legislative issues and actions at federal and state levels affecting the health and well-being of the children and teenagers in the U.S. They place special emphasis on the needs of children living in poverty.

Clearinghouse on Computer Accommodation (COCA)
18th and F Street, NW - KGDO
Room 2022
G.S.A.
Washington, D.C. 20001
(202) 523-1906
They provide information about computer accommodations for individuals with vision, mobility hearing, learning, mental, or speech disabilities. Their main focus is assistance to federal agencies.

Clearinghouse on Disability Information
Office of Special Education and Rehabilitative Services (OSERS)
U.S. Department of Education
Room 3132, Switzer Building
Washington, D.C. 20202-2524
(202) 732-1241
Information and referrals on wide range of topics related to disabilities especially in regards to federal funding, legislation, and programs involving people with disabilities.

DB Link
Teaching Research
345 N. Monmouth Ave.
Monmouth, OR 97361
(503) 838-8776
(503) 838-8150 FAX
(503) 854-7013 TDD

Department of Human Services
Mental Health, Developmental Disabilities, and Substance Abuse
325 North Salisbury Street
Raleigh, NC 27603
(919) 733-3654
Information on programs for infants and toddlers with disabilities, ages birth through two years old. Also located there is the Child and Family Services Branch which is the office of the state mental health agency representative for children and youth.

Disability Information and Referral Service (DIRS)
3805 Marshall Street
Wheat Ridge, CO 80033
(303) 420-2942
(800) 255-3477 (TDD)
Through a computerized database, they can provide information from the private sector, government, and government supported agencies about services available to people with disabilities, their families, and support groups.

Governor's Advocacy Council for Persons with Disabilities
1318 Dale Street
Suite 100
Raleigh, NC 27605
(919) 733-9250

Health & National Resources,
Maternal & Child Health Division,
Department of Environment,
Children and Youth Section,
P.O. Box 27687
1330 St. Mary's Street
Raleigh, NC 27611-7687
(919) 733-7437

Lekotek
INNOTEK
2100 Ridge Avenue
Evanston, IL 60204
(312) 328-0001
50 nationwide programs that offer support and encouragement for children with special needs and their families. They also have a library of toys that improve skills in children with disabilities and offer technology training on the use of computers for children with special needs.

Metrolina Library for the Blind and Physically Handicapped
310 N. Tryon Street
Charlotte, NC 28202
(704) 334-4358

National Association of Developmental Disabilities Councils
1234 Massachusetts Avenue, NW, Suite 103
Washington, D.C. 20005
(202) 347-1234

National Black Child Development Institute
1463 Rhode Island Avenue, NW
Washington, D.C. 20005
(202) 387-1281
This organization provides services, advocacy, publications, legislative information and updates, research, conferences, and speakers on issues of health, welfare, education and care to improve the quality of life for black children and youth.

National Council of Disability
800 Independence Avenue, SW, Suite 814
Washington, D.C. 20591
(202) 267-3846
(202) 267-3232 (TDD)
PUBLICATION: FOCUS (free newsletter).
An independent federal agency charged with addressing, analyzing, and making recommendations on issues of public policy which affect people with disabilities. The council originated and developed the first draft of the Americans With Disabilities Act.

National Head Start Association
1220 King Street, Suite 200
Alexandria, VA 22314
(703) 739-0875
This agency seeks to upgrade the quantity and quality of Head Start Program services through training, speakers, and organizational policies, positions, and statements.

Head Start (Project)
Administration on Children, Youth, and Families, Office of Human Development Services
U.S. Department of Health and Human Services
P.O. Box 1182
Washington, D.C 20013
(202) 245-0572
(800) 245-0572

National Health/Education Consortium
Institute for Educational Leadership
1001 Connecticut Avenue, NW, Suite 310
Washington, D.C. 20036
(202) 822-8405

National Commission to Prevent Infant Mortality
Switzer Building, Room 2014
330 C Street, SW
Washington, D.C. 20201
(202) 472-1364
They and the National Health/Education Consortium involve leaders of the major health and education associations to integrate these services for children. The Consortium encourages joint efforts and approaches, distributes information about the relationship between health and learning, and advocates integrated public policy strategies.

National Information Center for Children and Youth with Disabilities (NICHCY)
1233 20th St., N.W., Suite 504
Washington, D.C. 20036
(202) 416-0300
A clearinghouse for national information and referrals for families and professionals on issues concerning children and youths ages 22 and under with disabilities.

National Information Center for Health Related Services
The Center for Developmental Disabilities
University of South Carolina
1244 Blossom Street
Columbia, SC 29208
(803) 777-4435
(800) 922-9234

National Institute of Child Health and Human Development (NICHD)
National Institutes of Health (NIH)
U.S. Dept. of Health and Human Services
Building 31
Room 2A32
Bethesda, MD 20892
(301) 496-5133

National Organization on Disability (NOD)
910 16th St., NW
Suite 600
Washington, D.C. 20006
(202) 293-5960
(202) 293-5968 (TDD)
PUBLICATION: REPORT (quarterly newsletter).
The organization is involved in activities to improve attitudes towards people with disabilities, to expand opportunities in education and employment, and to eliminate physical barriers and expand involvement in religious, cultural, and recreational activities.

National Resource Institute on Children and Youth with Handicaps (NRICH)
University of Washington
Mailstop WJ-10
Seattle, WA 98195
(206) 543-2213

Parents and Professionals for Handicapped Children
P.O. Box B-26214
Raleigh, NC (919) 832-7535

World Institute on Disability (WID)
510 16th Street
Oakland, CA 94612
(415) 763-4100 (Voice/TDD)
A public policy organization searching for solutions to major problems people with disabilities face as well as to create a more accessible and supportive society for everyone through research, public education, and program development. It offers information on independent living, personal attendant care, and the results of studies of the IDEAS project in foreign countries.

Publications:

Report on Disability Programs
A biweekly newsletter that tracks new issues and people concerned with disability, and reports on federal legislation and activities affecting people with disabilities.
Published by:
Business Publishers, Inc.
951 Pershing Drive
Silver Spring, MD 20910
(301) 587-6300

Helping the Severely Handicapped Child: A Guide for Parents and Teachers
A manual written by P. Doyle, J. Goodman, J. Grotsky, and L. Mann (Thomas Y. Crowell, Publishers, NY, 1979). A guide for parents and teachers of children with severe physical and mental impairments. Covers areas such as positioning, feeding, dressing, toilet training, equipment, and resources. Also covers financial planning, educational rights, and resources useful for any child with a handicap.

DENTAL HEALTH:

National Foundation of Dentistry for the Handicapped (NFDH)
1259 14th Street
Suite 610
Denver, CO 80202
(303) 573-0264

EDUCATION:

American Alliance for Health, Physical Education, Recreation, and Dance
1900 Association Drive
Reston, VA 22091
(703) 476-3400
PUBLICATION: Able Bodies
Their Adapted Physical Activity Council provides information about adapting curricula and activities to meet the needs of people with disabilities. Their publication, "Best of Practical Pointers," offers suggestions of series of sports and activities for teachers to develop units of instruction.

American Association of Special Educators
107-20 125th Street
Richmond Hill, NY 11419

American Chemical Society
1155 Sixteenth Street, NW
Washington, D.C. 20036
(202) 872-4438
A manual entitled Teaching Chemistry to Physically Handicapped Students is published by the Society's Committee on the Handicapped.

Center for Innovation in Teaching Handicapped
2805 E. 10th Street
Bloomington, IN 47405
(812) 335-5847
Information, referrals, a database, and resources.

Educational Resources Information Center (ERIC)
ERIC Clearinghouse on Handicapped and Gifted Children/Council for Exceptional Children (CEC)
1920 Association Drive
Reston, VA 22091-1589
(703) 620-3660
An information system providing access to journal and document literature dealing with education in 16 specialized areas including: handicapped and gifted children; teacher education; reading and communication skills; and science, mathematics and environmental education.

National Clearinghouse for Professions in Special Education
Information Center
c/o Council for Exceptional Children
1920 Association Drive
Reston, VA 22091
(703) 264-9475
(703) 620-3660 (TDD)
Provides information regarding career opportunities, personnel needs, and personnel preparation programs to provide qualified professionals to serve people with disabilities. It also offers information, technical assistance, and linkages to encourage local, state, and national efforts to collect useful information on these topics.

Northeast Regional Education Center
P.O. Box 1028
Williamston, NC 27892
(919) 792-5166
(919) 756-9340
The State Education Agency Rural Representative.

Technical Assistance for Special Populations Program (TASPP)
National Center for Research in Vocational Education (NCRVE)
University of Illinois Site
345 Education Building
1310 S. Sixth Street
Champaign, IL 61820
(217) 333-0807
PUBLICATIONS: TASPP BULLETIN (quarterly newsletter on important issues and policy options); TASPP BRIEF (a paper highlighting current research, resources, and outstanding programs); various resource guides.
Assists in the improvement of vocational education programs for special populations, as well as provides materials, information, and services to professionals involved in this area.

Publications:

Assessment of Individuals with Severe Disabilities
By Diane M. Browder. A guide to designing comprehensive educational assessment for persons with severe disabilities. Published by:
Paul H. Brookes Publishing Co.
P.O. Box 10624
Baltimore, MD 21285

Educating Children with Multiple Disabilities - A Transdisciplinary Approach (2nd Edition)
By Fred P. Orelove, and Dick Sobsey. A guide to assessment, intervention, and evaluation techniques, curriculum planning and implementation, enhancing functional abilities, integrating programs, and dealing with family issues for children with severe/profound or multiple disabilities.
Published by:
Paul H. Brookes Publishing Co.
P.O. Box 10624
Baltimore, MD 21285

EMPLOYMENT OF THE DISABLED:

Association of Person in Supported Employment (APSE)
P.O. Box 27523
Richmond, VA 23261
(804) 266-6950
PUBLICATION: The Advance (members' newsletter)
Provides support and information to people who implement supported employment. Searches for integrated employment opportunities for individuals with severe disabilities, and informs members of training opportunities, policy changes, and legislative issues.

Job Accommodation Network (JAN)
West Virginia University
809 Allen Hall
Morgantown, WV 26506
(304) 293-7186
(800) 526-7234
PUBLICATIONS: Brochures, printed materials, and a newsletter available free of charge.
An international information network and consulting resource that provides information about employment issues to employers, persons with disabilities and rehabilitation professionals.

Mainstream, Inc.
1030 15th Street, NW, Suite 1010
Washington, D.C. 20005
(202) 898-1400 (Voice/TDD)
Works with employers and service providers to help increase employment opportunities for persons with disabilities. Services include publications, in-house training, conferences, and technical assistance on complying with ADA, and placement programs (in Washington, D.C. and Dallas, TX).

National Center on Disability Services (NCDS)
201 I.U. Willets Road
Albertson, NY 11507
(516) 747-5400
(516) 747-5355 (TDD)
Involved with education, research, vocational counseling, job training and placement for individuals with disabilities. The four main divisions are: (1) Henry Viscardi School for children with severe disabilities and a community program of adult/continuing education; (2) Vocational Rehabilitation Services which offers counseling, training, and placement of adults with disabilities; (3) Research and Training Institute which includes education, transition from school-to-work, employment and career development of individuals with disabilities; and (4) Abilities, Health, and Rehabilitation Services which is an outpatient service.

National Federation of the Blind
Job Opportunities for the Blind (JOB)
1800 Johnson Street
Baltimore, MD 21230
(410) 659-9314
(800) 638-7518
The JOB center has over 40 free publications, which include articles about careers, employment, and job listings.

North Carolina Governor's Council on Employment of the Handicapped
306 N. Wilmington Street
Raleigh, NC 27611

President's Committee on Employment of People with Disabilities
1111 20th Street, NW, Suite 636
Washington, D.C. 20036
(202) 653-5044
(202) 653-5050 (TDD)
PUBLICATIONS: Tips and Trends (newsletter); Worklife (quarterly magazine).
An information, assistance, and referral source concerning employment and people with disabilities. Services include referrals to local agencies, sponsorship of National Disability Employment Awareness Month (October), and conferences, workshops, and seminars on issues concerning employment.

Raleigh Vocational Center
3011 Fallstaff Road
Raleigh, NC 27601-1296
(919) 828-2325
The Center offers training and employment placement programs. They are also involved in areas including new techniques of rehabilitation, work adjustment, and therapeutic recreation.

Publications:

Vocational Education for Multihandicapped Youth with Cerebral Palsy
A guide for vocational teachers of preteens and young adults with cerebral palsy. Covers teaching strategies, adaptations, curriculum designs and implementation, and rehabilitation guidelines. Published by:
Paul H. Brookes Publishing, Co.
P.O. Box 10624
Baltimore, MD 21285

INDEPENDENT LIVING:

Bell House
Rt. 1, Box 335
Pleasant Garden, NC 27313
(919) 674-5148
A residential facility with attendant care, advocacy and outreach unit, information and referral service, social service and state agency liaison, and vocational and educational liaison.

Cara-More Community
625 W. Cameron Avenue
Chapel Hill, NC 27514
(919) 967-3402
The community offers transitional living and rehabilitation services, ADL skills, vocational and educational liaison, and counseling.

Independent Living Research Utilization Program (ILRU)
The Institute for Rehabilitation and Research
2323 South Sheppard, Suite 1000
Houston, TX 77019
(713) 520-0232
(713) 520-5136 (TDD)
PUBLICATIONS: Directory of Independent Living Programs; bimonthly newsletter.
Produces resource materials, develops and conducts training programs on independent living issues, offers technical assistance and consultation to independent living centers, conducts research and provides local referrals.

National Council on Independent Living (NCIL)
310 S. Peoria Street, Suite 201
Chicago, IL 60607
(312) 226-1006 (Voice/TDD)
Disseminates information on independent living matters and legislation, referrals to local programs, information for professionals, and advice on how to start a center.

The Research and Training Center on Independent Living (RTC/IL)
University of Kansas
BCR 3111 Haworth
Lawrence, KS 66045
(913) 864-4095 (Voice/TDD)
PUBLICATION: The Independent Living Forum (quarterly newsletter).
Develops, tests, and disseminates materials to more than 350 national independent living centers. Services include training materials, workshops, annual conference, and other related materials.

Publications:

Accent on Living
A magazine that focuses on the needs of individuals with physical disabilities. Articles are about organizations, products, inventions, and ideas of recreation and daily living. Also available is a Buyer's Guide, a catalog of products and services.
Published by:
Cheever Publishing, Inc.
P.O. Box 700
Bloomington, IL 61702
(309) 378-2661

Independent Living, Career and the disAbled, and Equal Opportunity
Published by:
Equal Opportunities Publications, Inc.
44 Broadway
Greenlawn, NY 11740
(516) 261-8917

PARENT/FAMILY HELP AND SUPPORT:

American Self-Help Clearinghouse
St. Clare-Riverside Medical Center
Pocono Road
Denville, NJ 07834
(201) 625-7101
(201) 625-9053 (TDD)
PUBLICATION: The Self-Help Sourcebook (a directory of national and model groups).
Provides information on a wide range of existing self-help groups and clearinghouses, and how to start new types of self-help networks and groups.

Exceptional Children's Assistance Center (ECAC), Inc.
P.O. Box 16
Davidson, NC 28036
(704) 892-1321
(800) 962-6817
Parent training information projects.

Estate Planning for the Disabled (EPD)
955 W. Center Avenue, Suite #12
Manteca, CA 95336
(209) 239-7558
(800) 448-1071
A national corporation that helps parents of special needs children to plan and develop estate plans, letters of intent, wills, and special needs trusts. Services also include referrals to qualified specialists in other states, seminars, workshops, and resource lists.

Family Support Network
CB# 7340
University of North Carolina
Chapel Hill, NC 27599
(800) 852-0042

Federation for Children with Special Needs
312 Stuart Street
Second Floor
Boston, MA 02116
(617) 482-2915

INSITE Family Advisors
Chris Jones
N.C. Dept. of Public Instruction
Exceptional Children Support Team
301 North Wilmington St.
Raleigh, NC 27601-2825
(919) 715-1998
Free in-home services to families with deaf-blind infants.

Life Services for the Handicapped, Inc.
352 Park Avenue South
New York, NY 10010
(212) 532-6740
Helps families address issues in long term planning for family members with severe disabilities utilizing available resources to achieve a high quality of life.

Make-A-Wish Foundation of America
4601 North 16th Street
Suite 205
Phoenix, AZ 85016
(602) 234-0960

National Association for Home Care
519 C Street, N.E.
Stanton Park
Washington, D.C. 20002
(202) 547-7424

National Association for Parents of the Visually Impaired (NAPVI)
Box 180806
Austin, TX 78718
(512) 323-5710

National Maternal and Child Health Resource Center
College of Law Building
The University of Iowa
Iowa City, IA 52242

National Parent Network on Disabilities (NPND)
1600 Prince Street, Suite #115
Alexandria, VA 22314-2836
(703) 684-6763 (V/TDD)
Services include legislative representation, reference and referrals, conferences, outreach to parents, development and distribution of materials, and a database to link parents with the appropriate agency or service.

Parent Educational Advocacy Training Center (PEATC)
228 S. Pitt Street
Alexandria, VA 22314
(703) 836-2953
(703) 836-3026 (TDD)
PUBLICATION: The PEATC Press (quarterly newsletter)
Conducts parent training courses in the Washington, D.C. area for anyone in the country. Participants return to their community and teach the curriculum learned. Courses include "Next Steps: Planning for Employment," and "Supported Employment Opportunities."

Parents Helping Parents (PHP)
535 Race Street
San Jose, CA 95126
(408) 288-5010
Provides information referrals, siblings program, professional and community networking programs, peer counseling, and support programs for families with children who have special health and educational needs. It also runs the National Center for Developing Parent-to-Parent Family Resource Centers which provides manuals, booklets, and consulting.

Parent-to-Parent
Family Support Network
Daniels Road
University of NC at Chapel Hill
Chapel Hill, NC 27599-7340
(919) 966-2841
(800) 852-0042

Sibling Information Network
991 Main Street, Suite 3A
East Hartford, CT 06108
(203) 282-7050
PUBLICATION: Sibling Information Network News (quarterly newsletter to report on projects, literature, research, and ideas useful to siblings of disabled individuals).
Assists with the needs of families of persons with disabilities and offers a state-by-state listing of sibling support groups.

Technical Assistance for Parent Programs (TAPP)
Federation for Children with Special Needs
312 Stuart Street
Boston, MA 02116
(617) 482-2915
PUBLICATION: Coalition Quarterly.
Provides information, conferences, and training to parent groups through referrals from regional centers.
Regional center serving North Carolina:
South Regional Center: PEP, Georgia ARC, 1851 Ram Runway, #104, College Park, GA 30337, (404) 761-3150

Additional Resources:

Beach Center on Families and Disability
Bureau of Child Research
University of Kansas
4138 Haworth Hall
Lawrence, KS 66045
(913) 864-7600

Disability and the Family, A Guide to Decisions for Adulthood (1989)
A book that introduces guidelines and strategies for making plans for the future of a youth with developmental and severe disabilities by Ann Turnbull, and H. Rutherford Turnbull.
Published by:
Paul H. Brookes Publishing, CO.
P.O. Box 10624
Baltimore, MD 212851

Pamphlets on a range of topics of interest to families with members who have a disability.
Published by:
Minerva Press, Inc.
6653 Anderson Road
Waterford, MI 48095
(313) 623-1566

The Exceptional Parent
P.O. Box 3000, Dept. EP
Denville, NJ 07834
A bi-monthly magazine for parents with disabled children. It contains worthwhile and informative articles written by parents, professionals and young people, as well as useful advertisements.

Brothers and Sisters - A Special Part of Exceptional Families
By Thomas H. Powell and Peggy Ahrenhold Ogle. A good resource to help siblings cope with benefit from being a member of an exceptional family. Published by:
Paul H. Brookes Publishing, Co.
P.O. Box 10624
Baltimore, MD 21285

Disability and the Family
By H. Rutherford Turnbull III, Ann P. Turnbull, G.J. Bronicki, Jean Ann Summers, and Constance Roeder-Gordon. A guide to help families with decisions concerning the future plans and choices for a member with a disability.
Published by:
Paul H. Brookes Publishing, Co.
P.O. Box 10624
Baltimore, MD 21285

RECREATION/PHYSICAL EDUCATION:

American Athletic Association of the Deaf
3791 Harrison Blvd
Ogden, UT 84403-2040
(801) 393-8710

American Camping Association
Publications Department
Bradford Woods
Martinsville, IN 46151
(317) 342-8456

American National Red Cross Program of Swimming for the Handicapped
17th and D Streets, N.W., Suite 500
Washington, D.C. 20006

National Park Service
Southeast Regional Office
1895 Phoenix Blvd.
Atlanta, GA 30349
(404) 996-2520
Contact the office for a listing of national parks in the North Carolina area that are accessible to the handicapped.

National Recreation and Park Association
2775 South Quincy Street
Suite 300
Arlington, VA 22206
(703) 820-4940
Contact this association for information on activities and parks nationwide that are accessible for disabled students.

National Recreation and Park Association
National Therapeutic Recreation Society
3101 Park Center Drive
12th Floor
Alexandria, VA 22302
(703) 820-4940

National Wheelchair Athletic Association
1604 E. Pikes Peak Avenue
Colorado Springs, CO 80909

North Carolina Special Olympics
P.O. Box 30191
Raleigh, NC 27622
(919) 787-6714

Special Olympics International
1350 New York Avenue, N.W., Suite 500
Washington, D.C. 20005
(202) 393-1250

U.S. Association for Blind Athletes
33 N. Institute, Brown Hall, Suite 015
Colorado Springs, Co 80903

U.S. Cerebral Palsy Athletic Association
34518 Warren Road, Suite 264
Westland, MI 48185

Very Special Arts
Education Office
John F. Kennedy Center for the Performing Arts
Washington, D.C. 20566
(202) 662-8899 (Voice)
(202) 662-8898 (TDD)

YMCA Wake County, Inc.
1012 Oberlin Road
Raleigh, NC 27605
(919) 828-3205

Publications:

Community Recreation for Persons with Disabilities by S. J. Scheien and M. T. Ray is available through Paul H. Brookes Publishing Co., P.O. Box 10624, Baltimore, MD 21285-9945, (800) 638-3775.

REHABILITATION:

American Occupational Therapy Association, Inc. (AOTA)
1383 Piccard Drive, Suite 301
Rockville, MD 20850
(301) 948-9626

American Physical Therapy Association (APTA)
1111 North Fairfax Street
Alexandria, VA 22314
(703) 684-2782

Division of Vocational Rehabilitation Services
Department of Human Resources
P.O. Box 26053
Raleigh, NC 27611
(919) 733-3364

Division of Vocational Rehabilitation
P.O. Box 2946
New Bern, NC 28560
(919) 637-4144

Division of Vocational Rehabilitation
Western N.C. Hospital, Bldg 18
Black Mountain, NC 28711
(704) 669-3346

National Clearinghouse of Rehabilitation Training Materials (NCHRTM)
Oklahoma State University
816 West Sixth Street
Stillwater, OK 74078
(405) 624-7650
PUBLICATION: NCHRTM Memorandum (quarterly listing of materials).
Disseminates information on vocational rehabilitation concentrating on training materials for use by educators of rehabilitation practitioners and in-service training personnel. Special education materials are also included.

National Easter Seal Society
2023 West Ogden Avenue
Chicago, IL 60612
(312) 243-8400 (Voice)
(312) 243-8880 (TDD)

National Rehabilitation Association (NRA)
633 South Washington Street
Alexandria, VA 22314
(703) 836-0850
(703) 836-0852 (TDD)
PUBLICATION: Journal of Rehabilitation (quarterly), and eight newsletters annually.
A membership organization active in advocacy, legislative design, and the development of education and training programs for people with disabilities. Divisions within the association include: Job Placement; Vocational Evaluation and Work Adjustment; and Independent Living.

National Rehabilitation Information Center (NARIC)
8455 Colesville Road, Suite 935
Silver Spring, MD 20910
(301) 588-9284 (Voice/TDD)
(800) 346-2742 (Voice/TDD)
PUBLICATIONS: NARIC Quarterly (free newsletter); NIDRR Program Directory.
Collects and disseminates information of disability and rehabilitation. Services include materials on all aspects of physical and mental disabilities, references and referrals, and NARIC's database.

Region IV Office of Rehabilitation Services
50 7th Street, NE, Rm 358
Atlanta, GA 30323
(404) 526-5221

Rehabilitation Research and Training Centers
There are 38 research and training centers funded by the Department of Education. They are listed in the National Rehabilitation Information Center's (NARIC's) free newsletter, NARIC Quarterly.

SPECIAL EDUCATION:

American Council on Rural Special Education (ACRES)
Miller Hall 359
Western Washington University
Bellingham, WA 98225
(206) 676-3576

Council For Exceptional Children (CEC)
1920 Association Drive
Reston, VA 22091
(703) 620-3660

National Association of State Directors of Special Education (NASDSE)
2021 K Street, N.W.
Suite 315
Washington, D.C. 20006
(202) 296-1800

Publications:

Practicum Handbook for Teachers of Students with Severe and Multiple Handicaps
By Dick Sobsey. A handbook for training teachers of students with severe disabilities. Includes competencies, standards, forms, procedures, and checklists required for providing fieldwork experience.
Published by:
TASH, 11201 Greenwood Ave., N.
Seattle, WA 98133

Program Quality Indicators (PQI): A Checklist of the Most Promising Practices in Educational Programs for Students with Severe Disabilities

The 1992 edition is by L. H. Meyer, J. Eichinger, and J. Downing. Designed for use by educators, therapists, parents, and advocates. Published by:
TASH, 11201 Greenwood Avenue N.
Seattle, WA 98133

DISABILITY SPECIFIC ORGANIZATIONS:

ALLERGY/ASTHMA:

American Academy of Allergy and Immunology (AAAI)
611 East Wells Street
Milwaukee, WI 53202
(414) 272-6071

American Allergy Association (AAA)
P.O. Box 7273
Menlo Park, CA 94026
(415) 322-1663

Asthma and Allergy Foundation of America (AAFA)
1717 Massachusetts Avenue, Suite 305
Washington, D.C. 20036
(202) 265-0265

Mothers of Asthmatics, Inc.
5316 Summit Drive
Fairfax, VA 22030
(703) 631-0123

AUTISM:

Autism Society of America
8601 Georgia Avenue, Suite 503
Silver Spring, MD 20910
(301) 565-0433
PUBLICATION: The Advocate (quarterly membership newsletter).

With about 200 local chapters, it provides information and referrals to written requests on topics related to autism and other severe disorders of behavior and communication.

National Information and Referral Service for Autistic and Autistic-Like Persons
306 31st Street
Huntington, WV 25702

CARDIOVASCULAR DISORDERS:

American College Cardiology
9111 Old Georgetown Road
Bethesda, MD 20814
(301) 897-5400

Council on Cardiovascular Disease in the Young
American Heart Association National Center
7320 Greenville Avenue
Dallas, TX 75231
(214) 373-6300

CEREBRAL PALSY:

American Academy for Cerebral Palsy and Developmental Med.
2315 Westwood Avenue
P.O.Box 11083
Richmond, VA 23230
(804) 355-0147
An information, referral, and research center for disabilities in mobility, hearing, learning, mental, and speech.

United Cerebral Palsy Associations
UCP Research and Educational Foundation
66 East 34th Street
New York, NY 10016
(212) 481-6300
(800) 872-1827

UCP Community Services Division
1522 K Street, NW, Suite 1112
Washington, D.C. 20005
(202) 842-1266
PUBLICATIONS: UCP News (quarterly magazine from New York), Word From Washington (monthly from D.C.).
Offers an range of services such as pre-school to adult work programs, research, advocacy, and publishing pamphlets, presentations and materials.

United Cerebral Palsy of NC
P.O. Box 12728
Raleigh, NC 27605
(919) 832-3787

CHRONIC ILLNESS:

National Center For Youth with Disabilities (NCYD)
Adolescent Health Program
University of Minnesota, Box 721-UMHC
Harvard Street at East River Road
Minneapolis, MN 55455
(612) 626-2825
(612) 624-3939 (TDD)
(800) 333-6293
PUBLICATIONS: Cydline Reviews (quarterly newsletter); Connections (brief facts sheet).
A resource center for technical assistance and information on adolescents with chronic illnesses and disabilities. Information includes current research, model programs, training and educational materials, and law and legislation.

National Organization for Rare Disorders, Inc. (NORD)
P.O. Box 8923
New Fairfield, CT 06812-1783
(203) 746-6518
(800) 999-6673
PUBLICATION: Orphan Disease Update
Individuals, health care organizations, researchers, and physicians; an information and referral service, and a networking program to put those suffering from the same diseases in touch with each other.

Association of Birth Defect Children (ABDC)
3526 Emerywood Lane
Orlando, FL 32812
(305) 859-2821

CLEFT PALATE:

American Cleft Palate Association (ACPA), The Cleft Plate Foundation, National Cleft Palate Association (NCPA)
1218 Grandview Avenue
University of Pittsburgh
Pittsburgh, PA 15211
(412) 481-1376
(800) 24-CLEFT

CYSTIC FIBROSIS:

Cystic Fibrosis Foundation
6931 Arlington Road
Bethesda, MD 20814
(301) 951-4422
(800) 344-4823
Supports research, endorses a network of Care Centers, develops materials to inform patients, families and the public about cystic fibrosis, and seeks to affect public policy.

DEAF-BLIND:

American Association of the Deaf-Blind (AADB)
814 Thayer Avenue
Silver Spring, MD 20910
(301) 588-6545
A national consumer organization with chapters throughout the country. Some of its activities include an annual convention, and technical assistance to deaf-blind people, as well as their families, educators and service providers.

Helen Keller National Center for Deaf-Blind Youths and Adults (HKNC)
111 Middle Neck Road
Sands Point, NY 11050
(516) 944-8900 (Voice/TDD)
PUBLICATION: The Nat-Cent News (3 times a year); HKNC TAC News.
The center is the single national facility which provides comprehensive evaluation and prevocational rehabilitation training, and conducts an extensive network of field services through regional offices, affiliated programs, and a national training team. It also maintains a national register of deaf-blind persons, and designs and improves sensory aids.

Helen Keller National Center Southeastern Region
1005 Virginia Avenue
Suite 104
Atlanta, GA 30354
(404) 766-9625 (Voice/TDD)

American Deafness and Rehabilitation Association (ADARA)
P.O. Box 55369
Little Rock, AR 72225
(501) 663-4617 (Voice/TDD)

National Association for the Deaf-Blind
2703 Forest Oak Circle
Norman, OK 73071

N. C. Department of Public Instruction Exceptional Children Support Team
301 North Wilmington St.
Raleigh, NC 27601-2825
(919) 715-1998
A center on deaf-blindness serving North Carolina.

Books and Publications:

Play, Recreation, and Leisure for People Who are Deaf-Blind, Nesbitt, John A., Editor (1974), University of Iowa, Recreation Education Program, Iowa City.

Toy List 1977: Suggestions for Toys that May Contribute to the Development of Deaf-Blind Children, Dronek, Margo, (1977), Southwestern Region Deaf-Blind Center, Sacramento, CA.

The Importance of Recreation for the Deaf-Blind, Minctti, Donna (Undated), The Helen Keller National Center for Deaf-Blind Youths and Adults, Sands Point, NY.

DIABETES:

American Diabetes Association, Inc.
1660 Duke Street
Alexandria, VA 22314
(703) 549-1500

Juvenile Diabetes Foundation International
432 Park Avenue South
16th Floor
New York, NY 10016
(212) 889-7575

DOWN'S SYNDROME:

National Down Syndrome Congress
1800 Dempster Street
Park Ridge, IL 60068
(312) 823-7750
(800) 232-6372
Promotes the interests of persons with down syndrome through distribution of information, parent support, and advocacy.

Association for Children with Down Syndrome, Inc. (ACDS)
2616 Martin Avenue
Bellmore, Long Island, NY 11710
(516) 221-4700

National Association for Down Syndrome (NADS)
P.O. Box 4542
Oak Brook, IL 60521
(312) 325-9112

National Down Syndrome Society (NDSS)
141 Fifth Avenue, Suite 7S
New York, NY 10010
(212) 460-9330
(800) 221-4602

EPILEPSY:

Epilepsy Association of NC
721 Tucker Street
Raleigh, NC 27603
(919) 834-2876
(800) 451-0694 (NC only)

Epilepsy Foundation of America
4351 Garden City Drive
Landover, MD 20785
(301)459-3700
(800) 332-1000 (Consumers)
(800) 322-4050 (Professional Library)
The Foundation offers or is involved with programs of information, referral, public and professional education, employment assistance, advocacy, and self-help. They also publish pamphlets, brochures, and newsletters, provide technical information services, support medical research, and work with various government agencies.

FRAGILE X SYNDROME:

Fragile X Foundation
P.O. Box 300233
Denver, CO 80203
(800) 835-2246

Fragile X Support, Inc.
1380 Huntington Drive
Mundelein, IL 60060
(312) 680-3317

HEARING IMPAIRMENTS:

Alexander Graham Bell Association for the Deaf (AGBA)
3417 Volta Place, N.W.
Washington, D.C. 20007
(202) 337-5220 (Voice/TDD)
PUBLICATIONS: Volta Review (professional journal); Newsounds (member newsletter).
A group that promotes an oral-deaf education, lip reading, and use of residual hearing for hearing impaired people. Besides information and referrals, AGBA also offers or supports descriptive literature and publications, advocacy network, and financial aid programs.

American Speech-Language-Hearing Association (ASHA)
10801 Rockville Pike
Rockville, MD 20852
(301) 897-5700 (Voice/TDD)
A membership association that provides services to people with speech, language, and hearing disorders. Services include brochures, information, service referrals, and education and health programs.

Center for Acoustical Studies
North Carolina State University
P.O. Box 5801
Raleigh, NC 27650
(919) 737-2373
Research on hearing and deafness.

Deafness and Communicative Disorders Branch
Rehabilitation Services Administration
Office of Special Ed. and Rehab. Services
Department of Education
330 C Street, S.W., Room 3316
Washington, D.C. 20202
(202) 732-1401 (Voice)
(202) 732-1298, 2848 (TDD)

Institute for Disabilities Research and Training, Inc.
1299 Lamberton Drive, Suite 200
Silver Spring, MD 2090

National Association of the Deaf (NAD)
814 Thayer Avenue
Silver Spring, MD 20910
(301) 587-1788
(301) 587-1789 (TDD)
PUBLICATIONS: Broadcaster; Deaf American.
Provides information on deafness and hearing loss, deafness-related materials, advocacy and legal consultation, leadership training through workshops, and youth programs.

National Hearing Aid Society
20361 Middlebelt Road
Livonia, MI 48152
(313) 478-2610; (800) 521-5247
An association of specialists that test hearing, select, fit, and dispense hearing aids and devices, and provides consumer information.

National Information Center on Deafness (NICD)
Gallaudet University
800 Florida Avenue, NE
Washington, D.C. 20002-3695
(202) 651-5051
(202) 651-5052 (TDD)
A source of current and valuable information of issues dealing with deafness and hearing loss.

Self Help for Hard of Hearing People
7800 Wisconsin Avenue
Bethesda, MD 20814
(301) 657-2248

HEREDITARY DISEASES:

Hereditary Disease Foundation
606 Wilshire Boulevard, Suite 504
Santa Monica, CA 90401-9990
(214) 458-4183

HYDROCEPHALUS:

National Hydrocephalus Foundation (NHF)
Route One River Road, Box 210 A
Joliet, IL 60436
(815) 467-6548

HYPERACTIVITY:

Center for Hyperactive Child Information, Inc. (CHCI)
P.O. Box 66272
Washington, D.C. 20035-6272
(703) 920-7495

MENTAL RETARDATION:

American Association on Mental Retardation (AAMR)
1719 Kalorama Road, NW
Washington, D.C. 20009
(202) 387-1719
(800) 424-3688
PUBLICATIONS: American Journal on Mental Retardation; Mental Retardation (bimonthly journal); News and Notes (quarterly newsletter).
Association of professionals and individuals concerned with issues relating to mental retardation. Information on research and practices is disseminated through national and regional meetings, and publications.

Association for Retarded Citizens (ARC)
500 E. Border Street, 3rd Floor
Arlington, TX 76010
(817) 640-0204
(800) 433-5255
PUBLICATION: the arc (newsletter)
A grassroots organization with 1300 chapters. Activities and services include training volunteers, and developing demonstration models in areas of education, training, residence, and further employment opportunities. They also offer referrals to local chapters, and information about model programs and training centers.

Child Development and Mental Retardation Research Institute
University of North Carolina
104 South Bldg., 005A
Chapel Hill, NC 27514
(919) 933-1091

Mental Retardation Association of America, Inc. (MRAA)
211 East 300 South Street, Suite 212
Salt Lake City, UT 84111
(801) 328-1575

MULTIPLE SCLEROSIS:

National Multiple Sclerosis Society
205 East 42nd Street
New York, NY 10017
(212) 986-3240

MUSCULAR DYSTROPHY:

Muscular Dystrophy Association (MDA)
810 Seventh Avenue
New York, NY 10019
(212) 586-0808

MUSCULOSKELETAL DISORDERS:

American Academy of Orthopaedic Surgeons
222 South Prospect Avenue
Park Ridge, IL 60068
(312) 823-7186

NEUROLOGIC DISORDERS:

American Academy of Neurology
2221 University Avenue, S.E., Suite 335
Minneapolis, MN 55414
(612) 623-8115

NEURO-METABOLIC DISORDERS:

Association of Neuro-Metabolic Disorders
5223 Brookfield Lane
Sylvania, OH 43560
(419) 885-1497

RESPIRATORY DISORDERS:

American Association for Respiratory Care
1720 Regal Row
Dallas, TX 75235
(214) 630-3540

American Lung Association
1740 Broadway
New York, NY 10019-4374
(212) 315-8700

SEVERE DISABILITIES:

Association for Persons with Severe Handicaps (TASH)
Teaching Research Center
345 North Monmouth Avenue
Monmouth, OR 97361
(503) 838-8391
A national organization that provides training and technical assistance to families and providers of severely handicapped children.

National Center for the Severely Handicapped
2443 South Colorado Boulevard #227
Denver, CO 80222

TASH: The Association for Persons with Severe Handicaps
11201 Greenwood Avenue
Seattle, WA 98133
(206) 361-8870
PUBLICATIONS: JASH (quarterly journal on research and trends in services); Newsletter (monthly); DC Update (every other month).
An association with local chapters that offers information and referral services, annual conferences, technical assistance, and publications to improve the living, learning and working environments of individuals with severe disabilities.

Publications:

Augmentative and Alternative Communication Systems for Persons with Moderate and Severe Disabilities
By D. Baumgart, J. Johnson, and E. Helmstetter. A guide for assessing, designing, implementing, and evaluating communication systems. Published by:
Paul H. Brookes Publishing Co.
P.O. Box 10624, Baltimore, MD 21285

SPINA BIFIDA:

Spina Bifida Association of America (SBAA)
1700 Rockville Pike, Suite 540
Rockville, MD 20852
(301) 770-7222
(800) 621-3141
PUBLICATION: INSIGHTS (newsletter for members).
Offers a network of support and information through local chapters, monitors legislation, and plans conferences, workshops, and social and educational programs.

Spina Bifida Association of NC
207 West Main Street
Mayoden, NC 27067
(800) 84-SBANC

MOBILITY IMPAIRMENT AND INJURY-RELATED DISABILITIES:

Gazette International Networking Institute (GINI)
4501 Maryland Avenue
St. Louis, MO 63108
(314) 361-0475
PUBLICATIONS: Rehabilitation Gazette (biannually); Polio Network News (quarterly); I.V.U.N. News (biannually for ventilator users).
Through a network of people and publications to reach, inform, and dignify people with disabilities.

VISION IMPAIRMENTS:

American Council of the Blind (ACB)
1155 15th Street, NW, Suite 720
Washington, D.C. 20005
(202) 467-5081
(800) 424-8666
An information and referral agency that is involved with legislative advocacy, improving educational and rehabilitation facilities, encouraging and assisting blind persons to develop their abilities, and prompting a greater understanding of blind people through public education.

American Foundation for the Blind (AFB)
15 West 16th Street
New York, NY 10011
(212) 620-2000
(800) 232-5463
PUBLICATIONS: Journal of Visual Impairment and Blindness; AFB News (quarterly); Catalog of Publications; Products for People with Visual Problems; Directory of Services for Blind and Visually-Impaired Persons in the U.S.; AFB Annual Report.
An organization that develops and implements public policy and legislation, informational and educational programs, diversified products, and quality services for persons who are blind or visually impaired.

Regional Office:
Region IV - American Foundation for the Blind
100 Peachtree Street
Suite 213
Atlanta, GA 30303
(404) 525-2303

American Printing House for the Blind, Inc. (APH)
1839 Frankfort Avenue
P.O. Box 6085
Louisville, KY 40206-0085
Manufactures and ships materials and products for the use of blind persons such as books in braille, large type, and recorded form, educational games and aids, brailling equipment, and computers and software.

Association For Education and Rehabilitation of the Blind and Visually Impaired (AER)
206 North Washington Street
Alexandria, VA 22314
(703) 548-1884

Association for Macular Diseases, Inc.
210 East 64th Street
New York, NY 10021
(212) 605-3719

Blind Children's Fund
230 Central Street
Auburndale, MA 02166-2399
(617) 332-4014

National Accreditation Council for Agencies Serving the Blind and Visually Handicapped
79 Madison Avenue
New York, NY 10016
(212) 683-8581

National Association for the Visually Handicapped (NAVH)
22 West 21st Street
New York, NY 10010
(212) 889-3141

National Federation of the Blind (NFB)
1800 Johnson Street
Baltimore, MD 21230
(301) 659-9314
PUBLICATIONS: The Braille Monitor (monthly); Postsecondary Education and Career Development - A Resource Guide for the Blind, Visually Impaired, and Physically Handicapped. A consumer group that offers information, referrals, and publications on issues related to blindness and vision loss.

National Society to Prevent Blindness
500 East Remington Road
Schaumburg, IL 60173
(312) 843-2020

Parents and Cataract Kids (PACK)
179 Hunter's Lane
Devon, PA 19333
(215) 293-1917
(215) 721-9131

Perkins School for the Blind
175 North Beacon St.
Watertown, MA 02172
(617) 924-3434

Resources for Rehabilitation
33 Bradford Street
Lexington, MA 02173
(617) 862-6455
Produces publications and conducts training programs on vision loss. Publication titles include "Living with Low Vision", a series of publications, Rehabilitation Resource Manual: VISION, Providing Services for People with Vision Loss: A Multidisciplinary Perspective, Children and Adolescents with Vision Loss, High Tech Aids or People with Vision Loss, Aids for Everyday Living with Vision Loss.

RP Foundation Fighting Blindness
1401 Mount Royal Avenue
Baltimore, MD 21217
(800) 638-2300
(301) 225-9400
Information on Retinitis Pigmentosa, Usher Syndrome, and Macular Degeneration.

Vision Foundation, Inc.
818 Mount Auburn Street
Watertown, MA 02172
(617) 926-4232

ASSISTIVE TECHNOLOGY, MATERIALS, AND AIDS:

ABLEDATA
Newington Children's Hospital
Adaptive Equipment Center
181 East Cedar Street
Newington, CT 06111
(203) 667-5405
(800) 344-5405
A listing of more than 17,000 products available for rehabilitation and independent living. Contact the Trace Center at Waisman Center, 1500 Highland Avenue, Madison, WI 53705, (608) 262-6966.

AbleNet
1081 Tenth Avenue S.E.
Minneapolis, MN 55414
(612) 379-0956
(800) 322-0956
Switches, adapters, toys, and books.

Adaptive Aids
P.O. Box 57640
Tucson, AZ 85732
(602) 745-8112
(800) 233-5369 ext. 357
Switches, and control units.

Adaptive Devices Group
1278 North Farris Avenue
Fresno, CA 93728
(209) 237-1904
Switches, timers, communication aids, adapted toys and appliances, and custom design and repair of aids.

Adaptive Communication Systems
354 Hookstown Grade Road
Clinton, PA 15126
(412) 264-2288
Several of their products are portable, battery-powered speech output communication devices. Their Multi-Scan allows a computer to become a scanning communication aid using transparencies grids of communication symbols on the screen.

Aids Unlimited, Inc.
1101 North Calvert Street
Baltimore, MD 21202
(410) 659-0232
Sells alternative independence devices, services, and aids for the physically disabled.

American Foundation for the Blind
Product Center
100 Enterprise Place
P.O. Box 7044
Dover, DE 19903-7044
Products like independent aids, games, and health care for people with vision impairments.

American Printing House for the Blind, Inc. (APH)
1839 Frankfort Avenue
P.O. Box 6085
Louisville, KY 40206-0085
Manufactures and ships materials and products for the use of blind persons such as books in braille, large type, and recorded form, educational games and aids, brailling equipment, and computers and software.

Animated Voice Corporation
P.O. Box 819
San Marcos, CA 92069
(619) 744-8190
(800) 942-3699
Their Ani-Vox Computer Speech Systems are a combination of hardware and software voice input/output designed to strengthen speech communication skills and comprehension.

Arroyo and Associates, Inc. Rehabilitation Engineering Services
2549 Rockville Centre Parkway
Oceanside, NY 11572
(516) 763-1407
Switches, timers, scanners, controls, adapted radio and recorder, and alarms.

AT&T National Special Needs Center
2001 US Rt, 46, Suite 310
Parsippany, NJ 07054
(800) 233-1222
Offer various communication products, especially those that are connected with the use of the telephone, for the hearing impaired.

Automated Business and Services, Inc.
6715 Kenilworth Avenue
Riverdale, MD 20737-9960
(301) 454-8200
Their ABLE-2 product offers a variety of services to disabled computer users. The system output includes voice synthesis, tactile output displays and Braille output displays, and the input can be by voice, mouse, foot pedal, joystick, or headpointer.

Canon U.S.A., Inc.
One Canon Plaza
Lake Success, NY 11042-9979
(516) 488-6700
The company's Canon Communicator M is a portable communication aid. Messages and phrases can by stored and printed out on tape.

Carolina Computer Access Center
Metro School
700 East Second Street
Charlotte, NC 28202
(704) 342-3004
A local self-help group in a national network dealing with computers and people with disabilities.

Center for Special Education Technology
The Council for Exceptional Children
1920 Association Drive
Reston, VA 22091
(703) 620-3660
(800) 873-8255
Information about technology in the education of students with disabilities, the resources available to technology users, and the trends and application in technology use.

Center for Applied Special Technology (CAST)
39 Cross Street
Peabody, MA 01960
(508) 531-8555
It seeks to expand the opportunities of people with disabilities and to surmount interferences to reaching their full capacities for education, employment, or development. Services include: assessment and training; workshops and presentations nationwide; assistive technology; consultation to hardware and software manufacturers; and adapting computer systems to meet the specific needs of an individual.

Closing the Gap (CTG)
P.O. Box 68
Henderson, MN 56044
(612) 248-3294
Publishes a bimonthly newspaper on the applications of computers for people with disabilities especially in the area of special education and rehabilitation uses, presentations and training to professionals in the special education and rehabilitative fields, and hosts an annual conference on Computer Technology for the Handicapped every October.

Communication and Therapy Skill Builders
3830 E. Bellevue
P.O. Box 42050-B91
Tucson, AR 85733
(602) 323-7500
They publish catalogs of various products such as books, videos, communication boards, exercises, and developmental and daily living materials. Some of the areas they have products for are communication, language development, physical rehabilitation, pediatric therapy, community re-entry, professional resources, and motor development.

Creative Switch Industries
P.O. Box 5256
Des Moines, IA 50306
(515) 287-5748
Switches, times, battery accessories, and signaling devices.

Crestwood Company
P.O. Box 04606
6625 N. Sidney Place
Milwaukee, WI 53209
(414) 352-5678
They offer over 90 communication aids and language training materials for children and adults, switches and switch mountings, personal care and independence kits, and adapted toys for children with special needs.

Developmental Equipment, Inc.
P.O. Box 639
1000 N. Rand Road, Bldg. 115
Wauconda, IL 60084
(708) 526-2682
(800) 999-4660
Specializing in communication and computer access. They offer products for resources and information, communication systems and materials, switches, software, and computer adaptions for people with disabilities.

Don Johnston Developmental Equipment
P.O. Box 639
1000 No. Rand Road
Building 115
Waucoda, IL 60084
(708) 526-2682
(800) 999-4660

Gallaudet University Press
800 Florida Avenue, NE
Washington, D.C. 20002
(202) 651-5488
Publishes and distributes books, literature, and media on topics related to hearing impairments, and the deaf. One guide is the Curriculum Guide Book (1983), a catalog of curriculum guides to serve deaf students.

Handicapped Children's Technological Services
Box 7
Foster, RI 02825
(401) 861-3444
Switches, timers, toys, and computer systems.

Healthcare Catalog
Fred Sammons, Inc., Box 32
Brookfield, IL 60513-0032
Their catalogs offer a range of products and resources in the areas of communication, sensory motor, therapy, recreation, wheelchairs, and activities of daily living

HumanWare, Inc.
6245 King Road
Loomis, CA 95650
(916) 652-7253
(800) 722-3393
Advanced technology to help people with vision impairments, low vision, and learning disabilitities. Some of their products are MasterTouch systems, KeyBraille, ClearView, and braille printers.

IBM National Support Center for Persons with Disabilities
4111 Northside Parkway
Atlanta, GA 30327
(800) 426-2133
(800) 284-9482 (TDD)
An information and referral service on how assistive computer devices and software can help people with disabilities. Their IBM PS/2 SpeechViewer is a professional program used in speech therapy to give feedback of speech through animated displays and audio playback, focusing on selected dimensions on speech.

Independendent Living Aids, Inc.
27 East Mall
Plainview, NY 11803
(516) 752-8080
(800) 537-2118
Offers products for an active independent life

Innocomp
33195 Wagon Wheel Drive
Solon, OH 44139
(216) 248-6206
Their battery-powered text-to-speech communication device, Say-It-All II Plus, adapts to Bliss symbols, Touch and Talk, and other symbol based communication systems.

J.A. Preston Corporation
60 Page Road
Clifton, NJ 07012
(201) 777-2700
They advertise "special things for special kids (and adults)."

Lekotek Plan Book of Adaptive Toys (Vol. 1 and 2)
National Lekotek Center
2100 Ridge Avenue
Evansville, IL 60204
(312) 328-0001
A guide book on toys to build or create for special needs students.

LS&S Group, Inc.
950 Skokie Boulevard
Northbrook, IL 60062
(312) 498-9777
(800) 468-4789
Sells numerous products for the visually impaired.

Materials Development Center
Vocational Rehabilitation Institute
University of Wisconsin
Menomonie, WI 54751
(715) 232-1232
A company with services for the deaf-blind.

Maxi Aids
42 Executive Boulevard
P.O. Box 3209
Farmingdale, NY 11735
(516) 752-0521
(800) 522-6294
A large selection of products (clocks, writing aids, cooking aids, games, and personal care aids) for the blind and visually impaired.

Merrill Publishing Company
4635 Hilton Corporate Drive
Box 508
Columbus, OH 43216-0508
Their catalogs offer a wide range of resources and literature in the field of special education. Some topics include physically/severely handicapped, curriculum and materials, and classroom strategies and methods.

Microtech Consulting Company
909 West 23rd Street
Cedar Falls, IA 50613
(800) 383-SIGN
The Micro-Interpreter III presents American Sign Language as both an entertaining activity as well as an important means of communication with over 1500 easy to learn signs.

Microcomputer Support Group
3535 South Wilmington Street
Suite 205
Raleigh, NC 27603
(919) 772-7513
Provides information through a database, referral network, and support for all disabilities.

National Center on Education Media and Materials for the Handicapped
Ohio State University
220 West 12th Avenue
Columbus, OH 43210

National Special Education Alliance Worldwide Disability Solutions Group
Apple Computer, Inc.
20525 Mariani Ave., 36SE
Cupertino, CA 95014
(408) 974-7910
Two of Apple Computer's projects that provide information sharing, training and technical assistance about computer technologies relevant to meet the educational and rehabilitative needs of people with a variety of disabilities. The information and services come from a coalition of resource centers, professional organizations, and technology merchants working together to expand the ways that microcomputers can help people with disabilities.

Network Services
1915 Huguenot Road
Richmond, VA 23235
(804) 379-2253
Their software program, CAPTAIN"S LOG, is devised to train basic cognitive functions such as attention, memory, and visual-motor skills. Input and control can come from a mouse, trackball, joystick, or a Sip 'n' Puff Visual Control System.

New York Lighthouse Low Vision Service
111 East 59th Street
New York, NY 10022
(212) 355-2200
Low vision services for sensory aids and adaptions for deaf-blind people. Low vision aids can include telescopes, magnifiers, and projection and electronic magnification.

N.C. Assistive Technology Project (NCATP)
1110 Navaho Drive, Suite 101
Raleigh, NC 27609
(919) 850-2787

Pennsylvania College of Optometry
1200 West Godfrey Avenue
Philadelphia, PA 19141
(215) 276-6000
A source for low vision services and aids.

Pointer Systems, Inc.
One Mill Street
Burlington, VT 05401
(800) 537-1562
Equipment and software for direct computer access and communication for people with physical disabilities.

Potomac Technology, Inc.
One Church Street, Suite 402
Rockville, MD 20850
(800) 433-2838

(301) 762-0851 (TDD)
They offer a full line of products to assist hearing impaired people including TDDs, signalling devices, clock-timers, and television decoders.

Prentke Romich Company
1022 Heyl Road
Wooster, OH 44691
(216) 262-1984
(800) 642-8255
They sell a portable, key board activated, battery-powered digitized speech output communication devices such as the IntroTalker and Touch Talker. Their Light Talker is another speech output communication aid with an optional printer. Input for it can be by direct selection with a head pointer, or by scanning with single, dual, or multiple switches.

Radio Shack Division of Tandy Corporation
300 One Tandy Center
Fort Worth, TX 76102
(817) 390-3401
Their catalog of Products to Assist Hearing Impaired Persons offers selected products, most of which do not relate to the use of a computer.

RESNA
1101 Connecticut Avenue, NW, Suite 700
Washington, D.C. 20036
(202) 857-1199
An information center on research, development, distribution, integration, and employment of knowledge in rehabilitative and assistive technology. Contact them for information on publications, conferences, membership, and subscriptions.

Reach, Inc.
890 Hearthstone Drive
Stone Mountain, GA 30083
(404) 292-8933
Switches, control adapters, toys, and computer accessories.

Sentient Systems Technology, Inc.
5001 Baum Blvd
Pittsburgh, PA 15213
(412) 682-0144
The EyeTyper Model 300 is a portable communication device that is controlled by eye gaze.

Software Directory/Communication Sciences and Disorder
American Speech-Language-Hearing Foundation
Publication Sales Office, ASHA
10801 Rockville Pike
Rockville, MD 20852
(301) 897-5700
(800) 638-8255
A directory of information for software programs available to assist in communication areas such as audiology, cognitive retraining, fluency, language, speech, voice, and writing. Each entry contains information about publishers, target populations, and content of program.

SPECIALNET
GTE-Education Services, Inc.
2021 K Street NW, Suite 215
Washington, D.C. 20006
(202) 835-7300
On-line information for professionals in special education and related fields.

TASH
70 Gibson Drive Unit 12
Markham, Ontario
Canada L3R 4C2
(416) 475-2212
Switches, adapters, control units, computer aids, and communication and education aids.

Telesensory Systems, Inc. (TSI)
455 North Bernardo Avenue
P.O. Box 7455
Mountain View, CA 94039-7455
(415) 960-0920
(800) 227-8418
Their Telebraille is a portable communication aid to ease communication between two deaf-blind people either face-to-face or by phone.

The Capable Child, Inc.
8 Herkimer Avenue
Hewlett, NY 11557
(516) 872-1603
Switches, wireless remotes, and adapted toys.

Toys for Special Children, Inc.
385 Warburton Avenue
Hastings, NY 10706
(914) 478-0960
Switches, toys, communication aids, alarms, scooter boards, training aids, adapters, and computer aids.

Trace Research and Development For Communication, Control, and Computer Access For Handicapped Individuals
Waisman Center
1500 Highland Avenue
Madison, WI 53705
(608) 262-6966
(608) 263-5408 (TDD)
PUBLICATION: the Trace Resource Book (a registry of communication and training aids, switches, environmental control systems, software, and hardware modifications made for individuals with disabilities.)
A source of information on the communication and other needs of severely disabled people that can be met with microcomputer technology.

Typewriting Institute for the Handicapped
3012 West Augusta Avenue
Phoenix, AZ 85051
(602) 939-5344
PUBLICATION: catalogue of products
Produces the Dvorak one-handed keyboard for typewriters and word processors as well as other products to promote independence.

Ultratec, Inc.
6442 Normandy Lane
Madison, WI 53719
(608) 273-0707
Manufacturer of a variety of TDDs, TDD accessories, and signaling devices.

Vis-Aids, Inc.
102-09 Jamaica Avenue
P.O. Box 26
Richmond Hills, NY 11418
(718) 847-4734 (Voice)
(718) 441-2550
They sell aids and devices for the visually impaired, hearing impaired, or physically disabled.

Publications:

Aids to Make You Able
A listing compiled by Wendy Davis, Beaufort Books, Inc., New York, 1981. A book of self-help devices and ideas for the disabled to use at home and school. It shows easy and inexpensive items to create or purchase to help with everyday activities. The easy to understand explanations and pictures cover areas such as communication, eating/drinking, household, and leisure/pleasure.

Exploring Materials with Your Child with Special Needs
A manual by Lewis B. Klebanoff, Commonwealth Mental Health Foundation, Lexington, MA, 1974. Written for parents and teachers of children with disabilities to show them how to use household materials in fun and stimulating activities.

Selection and Use of Simple Technology in Home, School, Work, and Community Settings
By Jackie Levin and Lynn Scherfenberg and published by AbleNet, Inc. The book offers help, suggestions, and examples of the use of simple technology for a person with disabilities. It describes the technology available, how to decided which is best for an individual, and how to use it.

From Toys to Computers: Access For The Physically Disabled Child (1985)
By Christine Wright, and Mari Nomura. A guide on making and purchasing adapted aids. Chapters include adapting battery operated toys, switches, and positioning and motor control. Also offers listings of toys, aids, and manufactures. For a copy write, PO Box 700242, San Jose, CA 95170.

More Homemade Battery Devices for Severely Handicapped Children with Suggested Activities (1985)
By Linda J. Burkhart. A guide to homemade toy adaptions, switches, communication aids, and skills development. For a copy, contact Linda Burkhart, 8503 Rhode Island Avenue, College Park, MD, 20740.

Assistive Listening Devices: A Consumer-Oriented Summary
A good source of general information about assitive listening devices published by Gallaudet University Press, 800 Florida Avenue, NE, Washington, D.C. 20002.

APPENDIX E
NORTH CAROLINA RESOURCES

NORTH CAROLINA CONSUMER AND PROFESSIONAL ORGANIZATIONS

Adaptive Physical Education
103 Dudley Building
N.C. AT&T State University
Greensboro, NC 27411
(919) 334-7851
(919) 334-7803

Advocacy Center for Children's Education and Parent Training (ACCEPT)
1320 Glenwood Avenue
Greensboro, NC 27403
(919) 272-6373

The Arc of North Carolina, Inc.
(formerly the Association for Retarded Citizens, North Carolina, Inc.)
P.O. Box 20545
16 Rowan Street
Suite 204
Raleigh, NC 27619
(919) 782-4632
(800) 662-8706

Association for Retarded Citizens/NC
16 Rowan Street, P.O. Box 20545
Raleigh, NC 27619
(919) 782-4632

Association of Self-Advocates of North Carolina
c/o The Arc of North Carolina
P.O. Box 20545
16 Rowan Street, Suite 204
Raleigh, NC 27619
(919) 782-4632
(800) 662-8706

Autism Society of North Carolina, Inc.
3300 Woman's Club Drive
Raleigh, NC 27612,
(800) 442-2762

Beginnings for Parents of Hearing Impaired Children
1504 Western Blvd.
Raleigh, NC 27606
(919) 834-9100 (Voice[TDD).
Parents may call 1-800-541-HEAR.

Bell House
Rt. 1, Box 335
Pleasant Garden, NC 27313
(919) 674-5148

Cara-More Community
625 W. Cameron Avenue
Chapel Hill, NC 27514
(919) 967-3402

Carobell
P.O. Box 546
Jacksonville, NC 28540
(919) 455-0450
(919) 455-2310

Carolina Computer Access Center
Metro School
700 East Second Street
Charlotte, NC 28202
(704) 342-3004

Carolina Legal Assistance
P.O. Box 2446
Raleigh, NC 27602
(919) 856-2121

Carolina Literacy Center
Department of Allied Health Professionals
Campus Box # 8135 UNC-CH
Chapel Hill, NC 27599-8135
(919) 966-1486

Center for Acoustical Studies
North Carolina State University
P.O. Box 5801
Raleigh, NC 27650
(919) 737-2373

Child Development and Mental Retardation Research Institute
University of North Carolina
104 South Bldg., 005A
Chapel Hill, NC 27514
(919) 933-1091

Clinical Center for the Study of Development and Learning
University of N.C. at Chapel Hill
Campus Box #7255, BSRC
Chapel Hill, NC 27599-7255
(919) 966-5171

Coalition 2001
P.O. Box 20545
Raleigh, NC 27619
(919) 782-4632

Community Living Association
P.O. Box 25746
Raleigh, NC 27611-5746
(704) 861-9280

Cystic Fibrosis Foundation
P.O. Box 639
Wilson, NC 27894
(919) 834-1191
(800) 682-6858

Deaf-Blind Multihandicapped Association of North Carolina
Bill Stanford, President
6708 Woodmere Drive
Raleigh, NC 27612
(919) 848-3180

Developmental Disabilities Intervention and Research Program
324 Erwin Building
East Carolina University
Greenville, NC 27858
(919) 757-6164

Developmental Disabilities Training Institute
CB 3370
UNC-CH
Chapel Hill, NC 27599-3370
(919) 966-5463

Division of Exceptional Children
Black Mountain, NC 28711
(704) 669-3346

Division TEACCH
CB 7180
UNC-CH
Chapel Hill, NC 27599-7180
(919) 966-2173

Division of Services for the Blind
N.C. Department of Human Resources
309 Ashe Avenue
Raleigh, NC 27606
(919) 733-9822

Division of Social Services
Albemarle Building
325 N. Salisbury Street
Raleigh, NC 27611
(919) 733-3055

* **Family Services Section**
  (919) 733-7145
* **Children's Services Branch**
  (919) 733-7907
* **Adult and Family Services Branch**
  (919) 733-3818
* **Preventative and Supportive Services Branch**
  (919) 733-4458

Division of Vocational Rehabilitation Services
Department of Human Resources
P.O. Box 26053
Raleigh, NC 27611
(919) 733-3364

Division of Vocational Rehabilitation
P.O. Box 2946
New Bern, NC 28560
(919) 637-4144

Division of Vocational and Technical Education Services
Western N.C. Hospital
Department of Public Instruction
Education Bldg., Room 540
Raleigh, NC 27603-1712
(919) 733-7094

Eastern North Carolina School for the Deaf
Highway 301 North
Wilson, NC 27893
(919) 237-2450

Easter Seal Society of NC
2315 Myron Drive
Raleigh, NC 27607
(919) 783-8898
(800) 662-7119

Epilepsy Association of North Carolina
721 Tucker Street
Raleigh, NC 27603
(919) 834-2876
(800) 451-0694

Epilepsy Information Service
(800) 642-0500
In Winston Salem, NC, call (919) 748-2319.

Exceptional Children's Assistance Center (ECAC), Inc.
P.O. Box 16
Davidson, NC 28036
(704) 892-1321
(800) 962-6817

Family Support Network of North Carolina
Box 4,
Wing C, 221H,
UNC Medical School
Chapel Hill, NC 27514
(919) 966-2841
(800) TLC-0042

Fragile X Southeast Network
P.O. Box 3364
Duke University Medical Center
Durham, NC 27710
(919) 684-5513

Frank Porter Graham Child Development Center
CB 8180
UNC-CH
Chapel Hill, NC 27599-8180
(919) 962-4250

Governor Morehead School
301 Ashe Avenue
Raleigh, NC 27606
(919) 733-6192/6381

Governor's Advocacy Council for Persons with Disabilities
1318 Dale Street, Suite 100
Raleigh, NC 27605
(919) 733-9250

Health & National Resources,
Maternal & Child Health Division,
Department of Environment,
Children and Youth Section
P.O. Box 27687
1330 St. Mary's Street
Raleigh, NC 27611-7687
(919) 733-7437

Hilltop Home
3006 New Bern Avenue
Raleigh, NC 27610
(919) 834-2315

Horizons Residential Care Center
2835 Memorial Industrial School Road
Rural Hall, NC 27045
(919) 733-5794

The Human Development and Training Institute
Western Carolina Center
300 Enola Road
Morganton, NC 28655
(704) 433-2896

INSITE Project Family Advisors
Chris Jones
N.C. Dept. of Public Instruction
Exceptional Children Support Team
301 North Wilmington St.
Raleigh, NC 27601-2825
(919) 715-1998
Free in-home services to families with deaf-blind infants.

Key Technologies
P.O. Box 1997
Morganton, NC 28680
(704) 433-5302
(704) 433-6298 Fax

Learning Disability Association of North Carolina
P.O. Box 3542
Chapel Hill, NC 27515
(919) 967-9537

March of Dimes Birth Defects Foundation
4112 Pleasant Valley Rd.
Suite 208
Raleigh, NC 27612
(919) 787-6511
(800) 849-2663

Mental Health Association of North Carolina
115 1/2 West Morgan Street
Raleigh, NC 27601
(919) 828-8145

Mental Retardation Association of North Carolina, Inc.
2819 Montclair Road
Winston-Salem, NC 27514
(919) 725-5829

Muscular Dystrophy Association
3203 Woman's Club Drive
Suite 207
Raleigh, NC 27612
(919) 783-0222

Metrolina Association for the Blind
704 Louise Avenue
Charlotte, NC 28204
(704) 372-3870

Metrolina Library for the Blind and Physically Handicapped
310 N. Tryon Street
Charlotte, NC 28202
(704) 334-4358

Microcomputer Support Group
3535 South Wilmington Street, Suite 205
Raleigh, NC 27603
(919) 772-7513

Muscular Dystrophy Association
6612 Six Forks Road
Suite 104
Raleigh, NC 27615
(919) 848-8714

National Center on Disability Services (NCDS)
201 I.U. Willets Road
Albertson, NY 11507
(516) 747-5400
(516) 747-5355 (TDD)

National Federation of the Blind of North Carolina
601 Dixie Trail
Raleigh, NC 27607
(919) 828-6328

National Federation of the Blind of North Carolina
5310 Farm Pond Road
Charlotte, NC 28212
(704) 535-5165

National Multiple Sclerosis Society Central North Carolina Chapter
1429 Elizabeth Avenue
Charlotte, NC 28204

National Multiple Sclerosis Society Greater Carolina Chapter
1515 Mockingbird Lane
Suite 1000
Charlotte, NC 28209
(704) 525-2955
(800) 477-2955

North Carolina Alliance for the Mentally Ill
3716 National Drive, Suite 213
Raleigh, NC 27612
(919) 783-1807

North Carolina Alliance for Parents of the Visually Impaired, Inc.
5512 Olde South Road
Raleigh, NC 27606
(919) 782-4074

North Carolina Alliance of Disabled and Concerned Citizens
47 Jeffress Avenue
Asheville, NC 28803
(704) 274-5032

North Carolina Area Health Education Center Program
CB 7165
UNC-CH
Chapel Hill, NC 27599-7165
(919) 966-2461

North Carolina Assistive Technology Project
1110 Navaho Drive, Suite 101
Raleigh, NC 27609
(919) 850-2787

N.C. Association of Blind Athletes (NCABA)
704 Louise Avenue
Charlotte, NC 28204

North Carolina Association for Children and Adults with Learning Disabilities
105 Juniper Place
Chapel Hill, NC 27514
(919) 493-4336

North Carolina Association of the Deaf
P.O. Box 477
7801 Corder Drive
Charlotte, NC 28212
(704) 563-9400

North Carolina Association of Directors of Developmental Disability Centers (ADD)
919 Stokes Street
Burlington, NC 27215
(919) 226-1185

North Carolina Association of Directors of Developmental Day Centers (ADD)
Frankie Lemmon School
1800 Glenwood Avenue
Raleigh, NC 27608
(919) 821-7436

North Carolina Association for the Emotionally Troubled
c/o Caramore Community
P.O. Box 2576
Chapel Hill, NC 27515
(919) 967-3402

North Carolina Association of Rehabilitation Facilities
P.O. Box 51254
4905 Pine Cone Drive
Suite 5
Durham, NC 27717
(919) 493-7655

North Carolina Association of Residential Resources
c/o Howell's Center
101 Howell Drive
La Grange, NC 28551
(919) 566-9011

North Carolina Association for Retarded Citizens
16 Rowan Street, P.O. Box 20545
Raleigh, N.C. 27619
(919) 782-4632

North Carolina Association of Residences for the Retarded (NORCARR)
3006 New Bern Avenue
Raleigh, NC 27601
(919) 834-2315

North Carolina Center for Public Policy Research
P.O. Box 430
Raleigh, NC 27602
(919) 832-2839

North Carolina Chapter of the American Association on Mental Deficiency
Route 8, Box 118
Reidsville, NC 27320
(919) 342-4761

North Carolina Chapter of the American Association on Mental Retardation
c/o Developmental Disabilities Section
Division of Mental Health, Developmental Disabilities, and Substance Abuse Services
325 N. Salisbury Street
Raleigh, NC 27603
(919) 733-3654

North Carolina Chapter of the National Tuberous Sclerosis Association
1005 Indianhead Circle
Snow Hill, NC 28580
(919) 747-8592
(800) NCC-NTSA

North Carolina Child Advocacy Institute
1318 Dale Street, Suite 110
Raleigh, NC 27605
(919) 834-6623

North Carolina Council of Community Mental Health, Developmental Disabilities and Substance Abuse Programs
P.O. Box 26206
215 N. Dawson Street
Suite 123
Raleigh, NC 27611
(919) 755-0680

North Carolina Council for the Blind
1909 Southgate Drive
Raleigh, NC 27620
(919) 834-5563

North Carolina Council on Developmental Disabilities
1508 Western Blvd.
Raleigh, NC 27606
(919) 733-6566

North Carolina Deaf-Blind Associates, Inc.
1401 Ridgeway Avenue
Durham, NC 27701
(919) 596-7184 (Voice)
(919) 833-1062 (TDD)

North Carolina Department of Administration
Administration Building
116 W. Jones Street
Raleigh, NC 27603-8003

North Carolina Department of Administration
Governor's Advocacy Council for Persons with Disabilities
1318 Dale Street, Suite 100
Raleigh, NC 27605-1275
(919) 733-9250
(800) 821-6922 (Voice/TDD)

North Carolina Department of Environment, Health and Natural Resources
Archdale Building
512 N. Salisbury Street
P.O. Box 27687
Raleigh, NC 27611-7687
(919) 733-4984

North Carolina Department of Environment, Health and Natural Resources
Division of Maternal and Child Health
1330 St. Mary's Street
P.O. Box 27687
Raleigh, NC 27611-7687
(919) 733-3816
- Children and Youth Section, (919) 733-7437
- Prevention Services, (919) 733-0385

North Carolina Department of Human Resources
Adams Building
101 Blair Drive
Dorothea Dix Campus
Raleigh, NC 27603-2041
(919) 733-4534

North Carolina Department of Human Resources
CareLine
1-800-662-7030 (Voice/TDD).
Dial toll free from anywhere in North Carolina and an Information and Referral Counselor of the NC Department of Human Resources will answer you questions or connect you with the responsible agency. CARE-LINE seeks to link those in need to existing resources.

North Carolina Department of Human Resources
Council on Developmental Disabilities
1508 Western Boulevard
Raleigh, NC 27606
(919) 733-6566 (Voice/TDD)

North Carolina Department of Human Resources
Interagency Coordinating Council
Adams Building
101 Blair Drive
Dorothea Dix Campus
Raleigh, NC 27603
(919) 733-5995

North Carolina Department of Human Resources
Division of Aging
CB 29531
693 Palmer Drive
Raleigh, NC 27626
(919) 733-3983

North Carolina Department of Human Resources
Division of Facility Services
Council Building
701 Barbour Drive
Raleigh, NC 27603-2008
(919) 733-2342 (Director's Office)
- Day Care Section, (919) 733-4801
- Licensure Section, (919) 733-2786
- Certificate of Need Section, (919) 733-6360

North Carolina Department of Human Resources
Division of Medical Assistance
P.O. Box 29529
Kirby Building
1985 Umstead Drive
Raleigh, NC 27626-0529
(919) 733-2060

North Carolina Department of Human Resources
Division of Mental Health, Developmental Disabilities, and Substance Abuse Services
Albemarle Building
325 N. Salisbury Street
Raleigh, NC 27603
(919) 733-7011
- Developmental Disabilities Services, (919) 733-3654
- Mental Health Services, (919) 733-4660
- Alcohol and Drug Services, (919) 733-4670
- "Thomas S." Services, (919) 733-1763
- "Willie M." Services, (919) 733-0696
- Area Program Support, (919) 733-0596

North Carolina Department of Human Resources
Division of Services for the Blind
Fisher Building
309 Ashe Avenue
Raleigh, NC 27606
(919) 733-9822

North Carolina Department of Human Resources
Division of Services for Deaf and Hard of Hearing
Anderson Building, 695-A Palmer Drive
Raleigh, NC 27626
(919) 733-5199 (Voice)
(919) 733-5930 (TDD)

North Carolina Department of Human Resources
Division of Social Services
Albemarle Building
325 N. Salisbury Street
Raleigh, NC 27603
(919) 733-3055
- Family Services Section
  (919) 733-7145
- Children's Services Branch
  (919) 733-9467
- Adult and Family Services Branch
  (919) 733-3818

North Carolina Department of Human Resources
Division of Vocational Rehabilitation Services
805 Ruggles Drive
P. O. Box 26053
Raleigh, NC 27611
(919) 733-3364 (Voice/TDD)
- Access, NC
  (919) 733-3364
- Client Assistance Program
  (919) 733-3364
- Independent Living Program
  (919) 733-3364
- Supported Employment Program
  (919) 733-3364
- North Carolina Assistive Technology Project
  1110 Navaho Drive, Suite 101
  Raleigh, NC 27609
  (919) 850-2787
  1-800-852-0042 (Voice/TDD)

North Carolina Department of Human Resources
Division of Youth Services
Dobbins Building, 705 Palmer Drive
Raleigh, NC 27626
(919) 733-3011

North Carolina Department of Human Resources
Mental Health Study Commission
Albemarle Building, 325 N. Salisbury Street
Raleigh, NC 27603
(919) 733-6077

North Carolina Department of Public Instruction
Council on Exceptional Children
301 N. Wilmington Street
Raleigh, NC 27601-2825
(919) 715-1563

North Carolina Department of Public Instruction
Exceptional Children Support Team
301 N. Wilmington Street
Raleigh, NC 27601-2825
(919) 715-1563

North Carolina Developmental Disabilities Center
325 N. Salisbury Street
Albermarle Bldg., Rm 612
Raleigh, NC 27611
(919) 733-7787

North Carolina Developmental Disabilities Consortium
1515 Mockingbird Lane, Suite 901
Charlotte, NC 28209-3240
(800) 626-1627

North Carolina Federation of the Council for Exceptional Children
1604 Phillips Drive
Sanford, NC 27330
(919) 776-9281

North Carolina Head Injury Foundation
301 S. Tryon Street, Suite 1710
Charlotte, NC 28282
(704) 332-9834

North Carolina Governor's Council on Employment of the Handicapped
306 N. Wilmington Street
Raleigh, NC 27611

North Carolina Society for Autistic Adults and Children
2312 Milburnie Road
Raleigh, NC 27610
(919) 876-6364

North Carolina Special Olympics
P.O. Box 30191
Raleigh, NC 27622
(919) 787-6714

North Carolina State Library for the Blind and Physically Handicapped
Department of Cultural Resources
1811 North Blvd.
Raleigh, NC 27635
(919) 733-4379
(800) 622-7726

North Carolina Speech, Hearing, & Language Association
530 North Person Street
P.O. Box 28446
Raleigh, NC 27611-8446
(919) 833-3934

Northeast Regional Education Center
P.O. Box 1028
Williamston, NC 27892
(919) 792-5166
(919) 756-9340

North Carolina Registry of Interpreters for the Deaf
500 W. Trade Street, Suite 356
Charlotte, NC 28202
(704) 342-5482

Parents and Professionals for Children with Special Needs
6847 Greystone Drive
Raleigh, NC 27610
(919) 876-6364

Parents and Professionals for Handicapped Children
P.O. Box B-26214
Raleigh, NC (919) 832-7535

Parents Association for Hearing Impaired Children
9105 Ransdell Road
Raleigh, NC 27603
(919) 779-1061

Parent-to-Parent
Family Support Network
Daniels Road
University of NC at Chapel Hill
Chapel Hill, NC 27599-7340
(919) 966-2841
(800) 852-0042

Prader-Willi Syndrome Association of North Carolina
2401 Tanglewood Drive
Albemarle, NC 28001
(704) 982-7905

Raleigh Vocational Center
3011 Fallstaff Road
Raleigh, NC 27601-1296
(919) 828-2325

Special Olympics of North Carolina
P.O. Box 98209
Raleigh, NC 27624
(919) 878-7978
(800) 843-6276

Spina Bifida Association of North Carolina
207 West Main Street
Mayodan, NC 27027
(919) 548-4888

Statewide Parent Education and Advocacy for Kids (SPEAK)
1011 Anderson Street
Wilson, NC 27893
(919) 237-4838

Tammy Lynn Residential Center
301 Cardinal Gibbons Drive
Raleigh, NC 27605
(919) 832-8451

Textbook Services
3905 Reedy Creek Road
Raleigh, NC 27607
(919) 733-6015
(919) 733-7992

Tourette Syndrome Association North Carolina Chapter
1507 Fox Hollow Road
Greensboro, NC 27410
(919) 852-1218

United Cerebral Palsy of North Carolina
327 W. Morgan Street
P.O. Box 12728
Raleigh, NC 27605
(919) 832-3787
(800) 868-3787

YMCA Wake County, Inc.
1012 Oberlin Road
Raleigh, NC 27605
(919) 828-3205

APPENDIX F

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BIBLIOGRAPHY

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Jensema, C. K., Teaching MHHI Students in Residential Settings. West Virginia School for the Deaf and Blind, Romney, WV, 1984.

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APPENDIX G

STATE FORMS

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NORTH CAROLINA
DEPARTMENT OF PUBLIC INSTRUCTION

301 North Wilmington Street, Education Building
Raleigh, NC 27601-2825

BOB ETHERIDGE
State Superintendent

CERTIFICATION OF DEAF-BLINDNESS

I hereby certify that _____ is considered deaf-blind according to the
(Name of Child)
definition set forth in the **Federal Register, Volume 40, No. 35, February 20, 1975, Section 121c.37**(a) as follows:

> "Determination of deaf-blind children. As used in this part, the term 'deaf-blind children' means children who have auditory and visual handicaps, the combination of which causes such severe communication and other developmental and educational problems that they cannot properly be accommodated in special education programs solely for the hearing handicapped child or for the visually handicapped child."

The above-named child has received the following evaluations on the dates indicated.

Audiological _____ Ophthalmologial _____ Educational _____
(date) (date) (date)

Copies may be found in files located at _____
(program name)

_____
(program address and zip code)

The child's date of birth is _____

In addition, the parents of _____ have been notified of the fact that their child is considered deaf-blind and the name will be placed on the North Carolina registry for deaf-blind children.

Signed: _____ Date: _____
(Program Administrator)

_____
(Program)

_____
(Address)

Approved: _____
State Consultant for Services to Deaf-Blind Children

NORTH CAROLINA DEPARTMENT OF PUBLIC INSTRUCTION
DIVISION OF EXCEPTIONAL CHILDREN'S SERVICES

CERTIFICATION OF DEAF-BLINDNESS AND ADMISSION TO THE DEAF-BLIND REGISTRY

Before a potential deaf-blind child can be admitted to the Deaf-Blind Registry, he/she must be identified as deaf-blind in accordance with the definition set forth in the Federal Registry, Volume 40, No. 35, February 20, 1975, Section 121c.37 (a). Any individual may initiate admission to the Deaf-Blind Registry with the notification of the state consultant for services to deaf-blind children. Dissemination of this form is authorized by P.L. 91-230, Part C, Section 622.

The Division of Exceptional Children's Services must have on file at its office a copy of the child's ***Certification of Deaf-Blindness Form*** for each child before he/she may be admitted to the registry. A complete evaluation for admittance to the registry consists of an audiological, ophthalmological, and educational evaluation or recommendation.

After the child is identified as deaf-blind, the program administrator certifies the child and submits the information to the state consultant who verifies this fact.

The Certification of Deaf-Blindness Form is used in an effort to avoid the process of duplicating files, reports, and parental releases. A form should be on file for every deaf-blind child identified in the state of North Carolina. This certification will enable the Exceptional Children Support Team to offer services (technical assistance, consultation, inservice training, etc.) through the Part C, Section 622 Deaf-Blind program to children, parents, teachers and others.

Return form to: Chris Jones, Consultant
N.C. Department of Public Instruction
Exceptional Children Support Team
301 North Wilmington Street
Raleigh, NC 27601-2825

Due: February 15, 1994

NORTH CAROLINA
DEPARTMENT OF PUBLIC INSTRUCTION
Student Information Management

REGISTRATION OF LEGALLY BLIND

for

American Printing House for the Blind

FY 1994-95 Registry
Take: January, 1, 1995

1. Name of Child Alphabetically by Last, First, Middle	2. Date of Birth Mo/Day/Yr	3. Grade Placement	4. Visual Acuity		5. Primary Reading Medium Code
			Rt. Eye	Lt. Eye	

Local Education Agency/Number

GRADE PLACEMENT CODES

IP	=	Pupils in infant programs.
PS	=	Pupils in preschool programs.
KG	=	Pupils in kindergarten classes.
AN	=	School age students in academic non-graded programs without specific grade assignments because they are: a) attending academic programs which do not assign conventional grade designations, or b) new students working to acquire skills necessary for regular grade placement in an academic program.
PG	=	Students in postgraduate high school programs, studying at least less than college level.
VO	=	Students of school age in vocational training that will lead to independent employment, but not prevocational classes.
AD	=	Adults in educational programs of less than college level.
1..2	=	Students in regular grades 1 through 12; specify grade level.
OR	=	Students who do not fall into any of the above categories, e.g., pre-vocational and other classes for non-academic students.

VISUAL ACUITY CODES

HM	=	Hand Movements - should be used only when an eye specialist finds it is not possible to obtain an acuity using the Snellen Chart.
CF	=	Counts Fingers - should be used only when an eye specialist finds it is not possible to obtain an acuity using the Snellen Chart.
OP	=	Object Perception.
LP	=	Light Perception.
NIL	=	Totally Blind.
VF	=	Restricted field of less than 20 degrees (specify degrees: specify degree of visual field, e.g., VF 20.
SC	=	Distance reading measured on the Snellen Chart (specify distance, i.e. 200/200, etc.).

PRIMARY READING MEDIUM CODES

V	=	Visual reader - uses large print or regular print.
B	=	Braille reader - uses braille.
A	=	Auditory reader - uses a reader or recorded materials.
P	=	Prereader - student working on a readiness level or for whom the primary reading medium has not yet been determined
N	=	Nonreader - student who does not fall in any of the above categories.

Signed: _____ / _____
Superintendent Date

ECST: 8/94 204

Please submit additional forms if necessary.

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INSTRUCTIONS FOR COMPLETION
REGISTRATION OF LEGALLY BLIND

This form is to be used to list the students who are legally blind according to federal law. The information is a registry of the legally blind, and may include students who have other handicapping conditions. Students whose vision comes within the following definition of blindness are to be registered:

> "Central visual acuity of 20/200 or less in the better eye with correcting glasses, or a peripheral field so contracted that the widest diameter of such subtends an angular distance no greater than 20 degrees."

The following information is required:

1. Name of student(s) alphabetically.
2. Date of Birth.
3. Grade Placement for the 1994-95 school year.
4. Visual Acuity
5. Primary Reading Medium.

If you have questions related to the registration of legally blind students, please contact the Exceptional Children Support Team at (919) 715-1563. The SUPERINTENDENT is required to sign this form.

SUBMIT TWO TYPED ORIGINAL COPIES TO:

DEPARTMENT OF PUBLIC INSTRUCTION
EXCEPTIONAL CHILDREN SUPPORT TEAM
301 N WILMINGTON STREET
RALEIGH, NC 27601-2825

Cover Artwork by Sissy Carroll