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ABSTRACT

Five conference reports on the physically handicapped consider architectural barrier, attitudes, the use of total communication methods, a new symbolic communication system, and long term care of cerebral palsied or multiply handicapped individuals, respectively. Reported is a survey of public and private buildings in the Sioux Falls, South Dakota area to determine whether architectural barriers are a problem for the handicapped there. Also reported is a study of the relationship between the Is of Identity test of social adjustment and the Attitude Toward Disabled Persons Scale which found significant sex differences in scores. Sketched is the process by which one school for the deaf changed from a predominantly oral instructional approach to the use of total communication (the use of both manual and oral methods) with students from preschool through secondary levels. The use of a symbolic communication system called Blissymbolics (an ideographic logical organization of visual symbols) with nonverbal physically handicapped children is discussed. A community program providing long term care for cerebral palsied and other severely handicapped children and adults is explained to have goals such as the provision of parental and family relief and the improvement of residual physical abilities. (DB)

Exceptional Children Conference Papers: Physically Handicapped.

# AN OVERVIEW OF THE STUDY OF ARCHITECTURAL BARRIERS

BY
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and
BARBARA RIDENOUR

The subject of architectural barriers as related to the handicapped child as well as to the adult is rather involved to say the least. The attempt to give a short, yet detailed resume of the study of enviornmental barriers will be given here.

Historically speaking, the handicapped individual has been discriminated against in various ways. Centuries ago a deformed child was quickly put to death. In enlightened Rome, children who were deformed were put to death by drowning them in sewers. During the 15th century it was believed that demons were the culprits who inhabited the human body and did the deforming damage. Not until the time of Locke, Rousseau, and Thomas Paine did the handicapped person have a friend. Yet, many years passed before the handicapped people were given a helping hand. At the time of the colonies many people frowned on handicapped individuals or anyone else who had fallen on hard times. It was not until the Quakers took an interest in the down trodded that new light was shed for the deformed and the disabled. New medical and surgical techniques began to be developed, and the attitudes of the general public began to change toward a more humanistic approach. Yet, even in our modern era a man came on the international scene bringing destruction, prejudice, and killing of

handicapped people to create a super race. This man's name was Adolph Hitler. In his attempt to create the super race, he spared no one. Meanwhile, the United States was gaining maturity in dealing with the handicapped. In the 1920's the first significant laws were passed by the Congress of the United States offering more hope to the disabled. Yet, the job has not been completed in many areas, such as discrimination in employment opportunities and discrimination in the way buildings are built. Many educators are suggesting that handicapped children should be integrated in public schools for the social and psychological well-being of the child. It is important to note that many of the public schools are not accessible for a child who is in a wheelchair or who uses crutches or braces. The child is excluded from many social activities because he cannot reach the place of action.

The enviornmental barriers that affect handicappped individuals are many in number and are found in the most obvious places. At the same time some barriers are those that are considered a luxury. Probably the most obvious of the barriers are steps leading into a building or steps inside the building, and curbs as the end of sidewalks which lead to the street. The curbs are many times difficult for disabled persons who use wheelchairs, crutches or braces, and for those mature in years.

Outside the buildings, parking facilities for those are handicapped should be taken into consideration. The surface of the parking lot and the surface leading into the building is important for those who are disabled. Inside the buildings, the availability of elevators in place of steps is important. Drinking fountains and telephones must be built at the correct height for the wheelchair user. Restroom facilities that are accessible for getting into as wellas using are essential. To be sure, the door of the stall should open properly so that wheelchairs can easily enter. Handrails should also be made available for the wheelchair user as well as the aged person. Warning signals should be both audible and visual for those who are hearing impaired and visually impaired. With this, warning signals will take on a more meaningful purpose for those who are mentally retarded. The visual and audio warning signals must be of a nature that they create such a stimuli that there will be no mistake as to what the warning signal means. Raised letters on signs are also important for those who are visually impaired. It is very important for those who are normal in everyday life to remember that it is the little barriers that offer the most problems.

The many people who must contend with architectual barriers are affected in a number of different ways. A study published in 1968 by the United States Department

of Transportation shows by estimation that those affected by environmental barriers are:

Chronically Disabled.....6,093,000
(Including Aged)

Disabled by:

Injuries and Disease.....4,642,000

Age (non-chronic conditions).....15,281,000

Pregnancy (3 to 9 months).....2,097,000

Excessive Overweight..... 192,000

Institutional Population.....1,339,500
(Exclusive of aged and bedridden)

Total.....29,644,500

The approximately 30,000,000 people who are affected, in the opinion of the authors of this study, is conservative to say the least. It must be remembered that the Viet Nam War has created a number of individuals who are now directly affected by environmental barriers. It is also interesting to note that there is a good number of elderly people who are affected by man made barriers.

The disabilities that handicap children to such an extent that they are affected by architectural barriers are numerous. The most common of all disabilities for children is cerebral palsy. The second most common is a disease known as muscular dystrophy. Spina Bifida is the third major cause, then cystic fibrosis, rhematoid arthritis, and finally accidents. The above mentioned

disablities are those types that require long term care and that can leave the individual disabled permanently or can be fatal..

In adults, accidents, heart problems, and other miscelaneous causes have taken their toll. Old age is another aspect of the environmental problem and should be considered. All of these disabilities do have a profound affect on the handicapped individual's ability to go and do the things necessary for every day life.

The psychological consideration of architectural barriers are important, especially when dealing with the development of a child. Environmental barriers can have a direct affect upon the child's personality. It should be pointed out here that barriers are confining and in many cases limit the handicapped child's behavior. The child may be confined to a wheelchair which would limit his activities to his immediate family. The child has a need to be with other children and when this need is not met, he becomes frustrated and as a result, may become hostile or very withdrawn. The environmental barrier, if eliminated, could have a positive affect on the child. He would learn to be as independent as possible and he could also have the necessary interaction with other children that he needs. If the environmental barrier is not elimated, the child's frustration could turn into overdependence on the family creating problems with his

siblings. They might feel that they are being neglected and this could develop into some rather strong sibling rivalry which could have a life time affect. If the child does have a deep dependence on the parents and his siblings he might not be able to function independently for the remainder of his life. The problem does become more profound as the child gets older and suffers from the lack of social experiences with his own peer group. The child must learn to work and play with children of his own age.. The play experiences are often elimated simply because the child can not go where his friends go because there is some man made barriers in his way. As the child grows older , the seriousness of environmental barriers becomes directly affiliated with some rather strong psychological implications. Buildings that are inaccessible are many times indicative of the public's feelings toward the handicapped person. A building that has many steps leading to the entrance of the building says what a large sign with the words "WE DON'T WANT YOU" might say. If an individual is told enough times that he does not belong and that people really do not want him, it becomes a reality. His total personality and his total existence is then affected by those barriers which seek to exclude him from being and living a normal life as anyone has a right to expect. The building that posesses the non-verbal sign of exclusion

does create changes in the handicapped person's personality. It creates frustration, hostility, a feeling of futility, a feeling of uselessness, and it takes away the feeling of independence. In its place it puts a dependence on others to do the small things that are necessary for everyday life which takes away a human beings sense of self-worth and self-confidence. In short it can totally destroy an individual's will to lead a life as normal as possible.

The implications of architectural barriers are many and great. It is important to remember that each person needs contact with others in order to be able to function in the world. Social contact is a learning experience and what is learned is the social graces that are necessary for certain social situations. In many instancec other people provide models from which one learns how to act. If these models are not provided for children early in their life, it is difficult for them to attain the social knowledge that would be helpful to them in later years.

Many educators have said in the past that children who are handicapped suffer from the cruelity of normal children in social situations. This may be true in instances where children who are considered noraml have not had contact with handicapped children. It is the considered opinion of the authors of this study that children who are not exposed to children that are handicapped suffer

as much as the child who is handicapped from social cruelty. The question thaen becomes an issue of segreation versus integration. Again it is the opinion of the authors that if the children are told of the handicapped child's disability and helped to understand the problem, the handicapped child's life will be a much easier one. Children are not really the ones to blame. It is the ignorance of the adult world that many times puts normal children in the position of being applicator of cruelty and unable to understand many of the problems. Segregation can in a large part be blamed on two things; (1) The misunderstanding and ignorance of the general public and (2) the environmental barriers that are man made and prevent children and adults who are handicapped from being seen in public as much as is needed for people to be familair with them.

Studies done be Dr. LeRoy Larson, professor of special education, at Augustana College, Sioux Falls, South Dakota, and Lois E. Bull show that children who are both mentally and physically handicapped lack in social experiences which have a marked effect on the child's learning, both socially and educationally. In both studies the handicapped child was not accepted by his peer group, both groups were without adequate play experiences, and in both groups it seemed that parents were reluctant to take the child into situations where he be exposed to the public eye.

With both of these studies it would seem that social situations were what the children needed but were lacking. Parties, camps, and recreational programs should be provided for both the mentally and physically handicapped, but it is the contention of the authors here that these programs are hindered by public and parental ignorance and that environmental barriers do play a significant role in the absence of such programs. Parents cannot continue to carry a child when he grows older simply because the weight of the orthopeadic appliances that are used and a parent should not have to be under the continuous strain of worrying about health hazards for his children. The independence of the child as he grows older is important because parents will not always be around to take care of him and the social experiences should carry on without parents. This is where the problem of architectural barriers lies.

Educationally the child is not able to go to public schools for three main reasons. (1) The lack of teachers trained in special education. (2) The attitudes of parents, teachers, administrators, and the general public toward children who are handicapped both mentally and physically. It must be mentioned here that their attitude is changing. (3) The child cannot be educated in the public school simply because the schools are architecturally designed making it impossible for them to attend

classes with normal children.

In a survey of the Sioux Falls public schools it was found that most of the schools were not equipped and built to satisfy the needs of the handicapped child educationally. (The content of the survey will be mentioned in detail later in the paper.)

Out of the 15 schools surveyed it was found that only 50% of the schools had offstreet parking areas available adjacent to the building. Only 20% of the schools has a passenger loading zone. The approach to the building is important and it was found that 60% of the schools had entrance doors at ground level. It is important to note that in the schools where the door was not at ground level only one had a ramp to serve the handicapped school child. In the schools that had steps leading toward the entrance door, only 13% had handrails to help the disabled individual. All of the schools surveyed had no automatic door which would be a great help to the disabled child. Once inside the school it is important for no steps to be between the entrance and the main areas or cooridors. Yet, in 33% of the schools steps were present in these areas. Elevators are especially important to the handicapped child and this device lacking in most schools. Only 13% of the public schools reported elevators. Of these elevators that were reported none of them served essential areas.

In the study of the entrances (door ways) of the essential areas only two doors were found to be too narrow to meet the American Standard Specifications. Steps between essential areas not served by the elevator occured in 37% of the cases. Restrooms are particularly important. Steps usually block entrance to this area. Only 15% of the womens' restrooms had such barriers while 0% was recorded for the men's restrooms. On the other hand grabrails in the restroom stalls are important for stability for the handicapped school child. In both the boy's and girl's restrooms it was found that 100% of the restrooms were lacking this important device. Warning signals are very importa. to those who are deaf and blind. Audible signals accompanied by simultaneous visual signals for the benefit of those with hearing disabilities should be a requirement, yet only 15% of the schools reported this safety feature. Visual signals accompanied by simultaneous audible signals for the benefit of the blind should be also be a requirement, yet 0% of the schools reported this safety feature.

It should be remembered that these percentages were computed on an average from all of the schools surveyed. With that in mind some of the schools surveyed could meet many of the standards referred to in the American Standard Specifications. The results would, however, seem to bear the results expected by the authors of this study.

For the handicapped child to enter a school in this city would mean a great deal of dependence on the people around him. In fact the child would not, without help be able to attend one of these schools.

The next section of this study will pertain to the vocational aspects of the handicapped individual. Architectural barriers are a definate determiner in vocational training and job placement. Many employers are afraid to hire the handicapped because they are afraid that it is easier for a handicapped person to have accidents, but the complete opposite is usually true. Most of the time the handicapped worker does his job with fewer accidents then do people who are considered normal. Most of higher education for the handicapped has been oriented toward the college bound person. The emphais has not been on the vocational education that could very well prepare the handicapped person for a life of productivity. One of the reasons the authors feel this is the case is that vocational technical schools that are adapted for the disabled are relatively few and far between, leaving very few opportunities in this area. Surveys of institutions of higher education have been made which point to those institutions that are adapted so that the impaired individual might attend. The results of the survey of the institutions of higher learning will be included in the study of architectural barriers.

The study of architectural barriers and how it affects the disabled child and adult is certainly complex. It It must be understood that this is not the primary cause of the handicapped individual's frustration in society, yet it should be known that this problem is large enough to have cause and effect relationships. The problem of architectural barriers has been examined by many people but at the same time no one has examined the effects upon the disabled individual. To determine whether or not the problem was inexistance in the Sioux Falls area it was decided that buildings of both public and private origin should be surveyed.

The survey was done by college students enrolled in the special education program at Augustana College and by interested friends. The survey consisted of a model survey supplied by the National Society for Crippled Children and Adults (Easter Seal Society). The survey consisted of the following items and questions:

OFFSTREET PARKING

a. Is an offstreet parking area available adjacent to building? YES...NO

b. If adjacent offstreet parking is not available identify and give location of nearest and most convenient parking area.

c. Are parking area nad building seperated by a street? YES...NO

d. Is the surface of the parking area smooth and hard (no sand, gravel, etc.)? YES...NO

PASSENGER LOADING ZONE

a. Is there a passenger loading zone? YES...NO

b. If yes, where is it located in relation to selected entrance?

_____

APPROACH TO SELECTED ENTRANCE

a. Which entrance was selected as most accessible?

_____

b. Is the approach to the entrance door ground level? YES...NO

c. Is there a ramp in the approach to or at the entrance door? YES...NO

d. If there are any steps in the appraoch to or at the entrance door, give total number of steps.

_____

e. If there are steps, is there a sturdy handrail on at least one side or in the center? YES...NO

ENTRANCE DOOR

a. What is the width of the entrance doorway (with door open)? _____

b. Is the door automatic? YES...NO

c. Are there steps between entrance and main areas

or cooridor? YES...NO

d. If yes, what is the total number of steps?____

e. If there are steps, is there a sturdy handrail in the center or on at least one side? YES...NO

ELEVATOR

a. Is there a passenger elevator? YES...NO

b. Does it serve all essential areas? YES...NO

ESSENTIAL AREAS AREA 1. _____

AREA 2. _____

AREA 3. _____

| ACCESS FROM ENTRY TO ESSENTIAL AREAS | (1) | | (2) | | (3) | |
|---|---|---|---|---|---|---|
| a. Is the usable width of corridors and aisles at least 32 inches?..... | YES | NO | YES | NO | YES | NO |
| b. Is the narrowest clear doorway with door open 28 in. wide or more? | YES | NO | YES | NO | YES | NO |

INTERIOR OF ESSENTIAL AREAS

| | | | | | | |
|---|---|---|---|---|---|---|
| a. Are there any steps between essential areas not served by the elevator? | YES | NO | YES | NO | YES | NO |
| b. Does each flight of steps have a sturdy handrail on at least one side or in the center? | YES | NO | YES | NO | YES | NO |

PUBLIC TOILET ROOMS

a. Where are toilet rooms located? Men_____

Women_____

b. Would one need to go up or down steps to get to the toilet room? YES NO YES NO

c. If so, how many? _____ _____

d. If there are steps, does each flight have a sturdy handrail on at least one side or in the center? YES NO YES NO

e. What is the width of toilet room entrance doorway (with door open)? _____ _____

f. Is there free space in the room to permit a wheelchair to turn? YES NO YES NO

g. What is width of widest toilet stall door? _____ _____

h. Does this stall have handrails or grab bars? YES NO YES NO

MOTEL OR HOTEL GUEST ROOMS

a. What is width of the entrance door to guest room (with door open)? _____

b. What is width of entrance door to bath-room (with door open)? _____

c. Are there handrails or grab bars near the toilet? YES NO

d. Are there handrails or grab bars for the bath and shower? YES NO

PUBLIC TELEPHONES

a. Where is the most accessible phone located?_____

b. What type (booth, wall, desk)?_____

c. If phone is in a booth, what is width of booth door (with door open)? _____

d. Is the handset 48 in. or less from the floor? YES NO

e. Does the phone have amplifying controls for the hard of hearing? YES NO

INTERIOR (Auditorium, Church, Restaurant, etc.)

a. What is the distance from floor to edge of restaurant table?_____

b. If there are booths, can a wheelchair be placed at the open end of booth? YES NO

c. In theaters, public halls, churches, etc. can persons remain in wheelchairs? YES NO

d. If yes, where?_____

e. Can arrangements be made to reserve wheelchair space? YES NO

ASSISTANCE AND AIDS AVAILABLE

a. Is there an attendant who will take cars? YES NO

b. Is there help available for those needing assistance in entering? (doorman, porter) YES NO

c. If not, is help available for those needing assistance if arranged for in advance? YES NO

d. Who to call in advance for assistance?_____

e. Telephone number_____

f. Are wheelchairs available (at airports, hotels, museums, etc)? YES NO

WARNING SIGNALS

a. Are there audible signals accompanied by simultaneous visual signals for the benefit of those with hearing disablities? YES NO

b. Are any visual signals accompanied by simultaneous audible signals for the benefit of the blind? YES NO

The survey is now completed and is presently being programed for tabulation by computers. The surveys were grouped into different categories. It was decided that the buildings that were to be surveyed were the buildings which housed the most important things that were needed for everyday life. The buildings that were surveyed consisted of banks, clothing stores, laundramats, grocery stores, gas stations, schools, and one shopping center. The results of the surveys will be published in the final document of this study. After the initial computation of the surveys it is the opinion of the authors of this study that the problems of evironmental barriers is indeed great.

At the time the students were surveying the buildings, the attitudes of the business managers were also being recorded. At this time it is safe to say that most of the

business men who were contacted for the survey were interested and were indeed helpful to the students who were surveying the building. There were, of course, those who felt threatened by the surveys. Some businessmen were reluctant for the survey to be done and some remarks reflected that attitude. One businessman in particular said that ... now that you are done, don't bring all THOSE people in here. On the other hand some business men told the surveyors they would do all that they could to help in any way. It is important that these remarks be included because it reflects a cross-section of the attitudes of the general public.

The final copy of this study will include diagrams and drawings showing the ways that buildings can be made accessible to all of those who want to enter the building. Diagrams of ramps and entrances to buildings, parking areas, bathroom facilities, and a general overview of the American Standard Specifications will also be presented. If the specifications are presented, it is only fitting that laws and ordinances are also discussed. The study will include a survey of state laws published by the federal government dealing with architectural barriers. The strengths and weaknesses of South Dakota's state laws will be pointed out and model laws will be referred to and explained. An explanation of how the laws can be changed or implemented will be given. Court cases and

and decisions will also be presented. There are a number of ways that court preceedings can be initiated, including those done individually or by an organization. The study will include some ways that might be used to secure legal counsel.

In this short time it is difficult to give a great deal of information about the results that were discovered in this study. It could be said, however, that the final copy of this study will, hopefully, yeild a good deal of information for those interested in enviornmental barriers. It should be remembered that information is only as good as those who use it. In the words of Tulmud, "MAN'S KNOWLEDGE SHOULD NOT EXCEED HIS DEEDS".

1. Gearheart, B. R., Education of the Exceptional Child, Intext Educational Publishers, 1972

2. Cruickshank, William M., Johnson,G, Orville, Education of Exceptional Children and Youth, Prentice Hall, Inc. 1967

3. Bull, Lois E., A Comparative Statistical Study of the Social Experiences of Retarded Children Ages 5 to 10 In Eastern South Dakota, 1963

4. Lauder, Ruth, The Goal Is: Mobility! Enviornmental and Transportation Barriers Encountered by the Disabled, Published for the National Citizen's Conference on Rehabilitation of the Disabled and Disadvantaged by: United States Department of Health, Education, and Welfare.

5. A Report of the National Commission of Architectural Barriers to Rehabilitation of the Handicapped, Design for All Americans, Rehabilitation Services Administration Social and Rehabilitation Service, Department of Health, Education, and Welfare, December 1967

6. Making Facilities Accessible to the Physically Handicapped, State University Construction Fund, Albany, New York, July 1967

7. "The Symbol of Access, A Progress Report", International Rehabilitation Review, XXIII, No. 1, (First Quarter 1972) pp. 20-21

8. Highway Rest Area Facilities ... Designed for Handicapped Travelers, The President's Committee on Employment of the Handicapped, Washington, D.C. 20210

9. Edward H. Noakes, "Designing Public Transportation for Use by the Handicapped", Reprinted from Performance: The Story of the Handicapped, Monthly Publication of the President's Committee on Empolyment of the Handicapped

10. "Handicapped Travelers Seek Barrier Free Hotels and Motels", Operations Bulletin. American Hotel & Motel Association, June 1971

11. Eugene S Edington, "Survey of Colleges W/C Facilities Made", Paraplegia News, September 1963, pp. 12

12. Robert E. Hall, Eileen F. Lehman, Some Colleges and Universities With Special Facilities to Accomodate Handicapped Students, Department of Health, Education, and Welfare, Office of Education, March 1967

13. Architectural Checklist, Making Colleges and Universities Accessible to Handicapped Students. State University Construction Fund, Albany, New York, Reprinted by the President's Committee of the Employment of the Handicapped.

14. James Tuscher, Gary C. Fox, "Does the Open Door Include the Physically Handicapped?", Journal of Rehabilitation, Sept.-Oct., 1971, pp. 10-13

15. Robert C. Simmons, Modification of Building and Facilities For Use by the Severly Handicapped, Presented at the 16th Annual Meeting of the Central States Regional Association of Physical Plant Administrators, October 27-30, 1968

16. Outdoor Recreation for the Physically Handicapped, A Handbook of Design Standards, State of New York, Department of Conservation, State Council of Parks Outdoor Recreation, August, 1967

17. American National Standard Specifications for Making Buildings and Facilities Accessible to, and Usable by, The Physically Handicapped, National Society for Crippled Children and Adults, The President's Committee on Employment for the Physically Handicapped, October 31, 1961

18. Minnesota Laws, 1971, Chapter 466, As Amended, Effective Date: May 21, 1971, A BILL FOR AN ACT RELATING TO BUILDINGS AND FACILITIES: PROVIDING THAT PLANS AND SPECIFICATIONS FOR CONSTRUCTION OR REMODELING OF CERTAIN BUILDINGS AND FACILITIES PROVIDE FOR THE ACCESSIBLITY AND USIBILITY FOR THE PHYSICALLY HANDICAPPED AND AGED PERSONS.

19. Council File No. 248835 - Ordinance No. 14498 - By Thomas R. Byrne, An ordinance amending Chapter 4 of the St. Paul Legislative Code as amended pertaining to building construction.

20. Ordinance No. 7776, By Councilman Rheinberger: AN ORDINANCE AMENDING THE BUILDING CODE TO REQUIRE THAT CERTAIN TYPES OF BUILDINGS BE CONSTRUCTED IN SUCH A MANNER THAT THEY ARE ACCESSIBLE TO, AND FUNCTIONAL FOR THE PHYSICALLY HANDICAPPED AND AGED, The city of Duluth, Minnesota.

21. State Laws of South Dakota, 5-14-12 PUBLIC PROPERTY, PURCHASES AND CONTRACTS, 5-14-12, 5-14-13, 5-14-14, 5-14-15.

22. Architectural Barriers Fading From the Scene in Minneapolis Minnesota, A Legislative Report, Prepared and distributed by the Minnesota Society for Crippled Children and Adults, April 24, 1969

23. Robert Dantona, Benjamin Tessler, "Architectural Barriers for the Handicapped, A Survey of the Law in the United States", Rehabilitation Literature, Feb., 1967, Vol. 28, No. 2, pp. 34-43.

24. A Survey of State Legislation to Remove Architectural Barriers, Committee on Barrier Free Design, The President's Committee on Employment of the Handicapped, Washington, D.C.

25. Jean M. Kiernat, "Promoting Community Awareness of Architectural Barriers", The American Journal of Occupational Therapy, Vol. 26, No. 1 (January- February 1972), pp. 10-12.

26. Final Report: AIA Barrier Free Architecture Workshop Program, National Project Director, AIA Barrier Free Architecture Workshop Progam.

27. Travel Barriers, Department of Transportation, Office of the Secretary, Washington, D.C.

28. Guide to National Parks and Monuments for Handicapped Tourists, The President's Committee of Employment of the Handicapped, Veterans Employment Service of the U.S. Department of Labor, Manpower Administration

29. Abeson, Alan, Blacklow, Julie, Enviornmental Design: New Relevance for Special Education, Council for Exceptional Children, 1971.

# SYMBOLIC COMMUNICATION FOR NON-VERBAL PHYSICALLY HANDICAPPED CHILDREN

Paper to be presented at the CEC 51st Annual International Convention, Dallas, Texas. April 26, 1973.

by Shirley McNaughton, B.A. Project Supervisor

and Barbara Kates, M.A. Project Psychologist

The young child's expressive speech capability is recognized as an important aspect of his total language development. For the child who physically is incapable of functional speech, a substitute form of communication is essential. Through an educational programme at the Ontario Crippled Children's Centre, Toronto, an inter-disciplinary team is working toward the development of such a substitute, utilizing Blissymbolics, an international visual symbol system created by Charles K. Bliss of Australia.

Programme Objectives

Through the participation of a linguist, two rehabilitation-engineers, two technicians, an occupational-therapist, a speech-pathologist, a psychologist, three teachers and a teachers-aide, the following objectives are being pursued.

(1) To develop two new arrangements of symbols based upon observation of the children's use of two interim symbol-vocabularies which have been devised and introduced in 1972 - one to provide an expanded communication capability; one to provide a basic elementary form of communication.

(2) To extend the children's range of expression and to improve the quality of communication.

(3) (a) To teach English syntax and study the children's use of it in their symbol communication. (b) To study the children's use of "telegraphic" style. Telegraphic style refers to the use of key lexical words without the linking grammatical words, as in a telegram.

(4) To develop prototypes and investigate alternative symbol displays, both electro-mechanical and electronic.

(5) To investigate alternate seating and interface (child's way of relating with, and controlling the equipment) arrangements which

can meet the wide spectrum of needs of the severely involved physically handicapped child.

(6) To study the development in verbal expression as the child proceeds with symbol communication.

(7) To evaluate pre-test and post-test measures.

(8) To study the changing character of the child's communicative output when symbols - both Blissymbolics and alphabet - are integrated into the child's modes of communication.

(9) To develop teaching methods and teaching aids.

(10) To observe social, cognitive and academic development.

(11) To explore relationships of symbols to various methods of reading instruction.

(12) To investigate the change of image presented to others by children at different stages of symbol proficiency.

Programme Sample

Nine physically handicapped children are divided into two classes for the 1972 - 73 school year. Symbols are used throughout the day as the children's method of communication while they participate in a special educational programme. The children range in age from 7 years to 14 years, with the mode being 9 years. All the children are at either the early primary or pre-reading academic levels. Speech has been assessed as non-functional for all the children. Hearing has been assessed as adequate to respond to verbal instruction.

Blissymbolics

The system was created originally by Charles K. Bliss as a proposed international symbol language. Through its logical organization of visual symbols it offers potential for a fully expressive language. Because it is ideographic, it can be easily assimilated and requires none of the pre-reading phonic skills. In order for it to be utilized by physically handicapped children, the number of symbols must be restricted to accommodate the child's limited access to the complete vocabulary. Secondly, consideration must be given to the role symbols play in the communication of the physically handicapped child. Prior to the learning of typing, they become his sole linguistic mode of expression, rather than merely an alternate code to be used with persons of a different native tongue, as is the international system. For these reasons, the Bliss Symbol System must be adapted to the requirements of the cerebral palsied child; instruction must be given in the use of syntax and of inventive symbol strategies; new symbols suitable to young children must be provided; the meanings of many of the indiviaual symbols must be expanded to allow a greater range of expression.

In symbol construction and in the introduction of new symbols, every effort is being made to remain consistent to the Bliss system so that the children's symbol vocabulary will remain an integral part of the International symbol language.

Observation to Date

(1) It has been demonstrated that Bliss Symbols can be remembered easily by the children and that the symbols can be readily used to answer questions.

Only with the more intellectually capable and mature children does the ability to initiate conversations come early in symbol learning.

The children have displayed difficulty in selecting the appropriate question symbols and in organizing their outputs so that they will not be open to misinterpretation.

The need for instruction in English syntax has become apparent.

It has become evident that many social experiences must be provided so that opportunities are available to the child for communication at the level appropriate to the situation.

(2) The children have displayed an eagerness to work with symbols, and they have persevered in symbol use, in spite of the many technical frustrations which occur during the development of prototypes.

(3) Through the child's improved ability to communicate, the teacher has become better able to understand not only the child's expressed needs, but also his developmental needs. Social immaturity, limited ability to relate with peers, egocentric tendencies, poor ability in problem solving, weakness in attending to auditory detail, are some of the areas of development for which the need for supportive programmes has become apparent.

(4) More accurate psychological assessment has become possible through the children's improved communication capability. The psychologist has been able to use more refined instruments to assess some of the children and as a result more detailed and more precise profiles of strengths and weaknesses of these children's abilities are attainable.

(5) In introducing new symbol displays, attention has had to be directed toward the spatial and time factors involved in controlling the display as well as to the complexity of interface requirements for the severely-involved child.

(6) Symbol use has encouraged vocalization and speech.

Implications for other areas of disability

Findings to date would indicate that symbols, although they cannot be presumed to equal speech, do offer a substitute language mode which can provide the child with a wide range of expressive language experiences. The present study has been limited to exploration of symbols with physically handicapped children. The extension and improvement in learning potential, inter-personal relationship capability, and image presented to others, which develops through the use of symbols, would suggest that the application of Blissymbolics warrants investigation as a substitute for speech with retarded, aphasic and autistic children, stroke patients, and physically handicapped adults.

The Ontario Crippled Children's Centre Bliss Project is under the direction of Maurice Izzard, B. Ed., M.A., School Principal and is supervised by Shirley McNaughton, B.A., resource teacher in the programme. The 1972-73 study is aided by funds from the Ontario Crippled Children's Centre, the Ontario Ministry of Education, the Ontario Society for Crippled Children.

51st Annual International Conference

COUNCIL FOR EXCEPTIONAL CHILDREN

April 22-27, 1973

Dallas, Texas

# THE RELATIONSHIP BETWEEN THE IS OF IDENTITY AND ATTITUDE TOWARD DISABLED PERSONS SCALES

by

Carol Ernandes

&

Alfred L. Lazar

California State University Long Beach
Long Beach, California 90840

# INTRODUCTION

The notion that symbols govern our behavior and are reflected in how we feel, think, and act was advocated by the noted general semantiscist Alfred Korzybski (1921) over fifty-two years ago in his well known book, Manhood of Humanity. He pointed out that our symbolic models match the structure of reality, that is the closer in relationship our models and reality, the more sanely we react. Thus, failure to cope with the factor of dissimilarity between language and the real world leads one to misevaluations and consequent maladjustment.

Weiss (1956) developed the Is of Identity Test (IOI) to measure social adjustment, but to a great extent, to test the notion put forth by Korzybski that there is a strong relationship between the structure of the language used by an individual and the real world to which adjustment is made.

In a more recent study, Yamamoto and Wiersma (1967) used a battery of four instruments to explore the relationship between student teachers' attitudes toward the physically handicapped and the mentally ill and toward themselves and reality in general. Two of the instruments used in the battery were the IOI and the ATDP (Attitude Towards Disabled Persons Scale). The ATDP being used to measure attitudes of acceptance or rejection of handicapped individuals.

Yamamoto and Wiersma (1971) reported a very low and statistically insignificant rank correlation (r -.02) between the ATDP and the IOI Scales. In contrast, Lazar and Ernandes (1973) reported finding a statistically significant correlation (r=.343) at the .001 level of significance between the IOI and the ATDP. It should be noted that one possible reason for this difference might be that the study reporting no significant relationship used the Form B of the ATDP, whereas the study reporting a significant finding used Form-0 of the ATDP as modified by Lazar, Gensley, and Orpet (1971). There might also have been differences in the two samples used by the two investigations, even though both were undergraduate educational psychology classes.

It is interesting to note that the samples used in both studies did very well as groups on the IOI scale. In fact, both groups scored in what might be called the very well adjusted range on the IOI. The Yamamoto and Wiersma study had a N = 96, $\overline{X}$ = 76.94, s.d. of 20.09, while the Lazar and Ernandes study had a N = 105, $\overline{X}$ = 78.71, s.d. of 14.25. While the latter study had a slightly higher mean, it is not that significantly different. It is satisfying to note that both groups of education majors were well adjusted as groups, but Lazar and Ernandes did notice about 5 individuals in their group that ranked in the maladjusted group on the IOI. No comparable data is available on the other study.

## PURPOSE OF STUDY

The purpose of this study was to investigate if there was a significant difference between male and female college students in their attitudes toward disabled persons and also a difference in their social adjustment as measured by the two criterion instruments, the ATDP and the IOI.

Yuker, Block, and Younng (1966) in their comprehensive review of numerous studies dealing with sex differences in attitudes toward the disabled report that in seven of the thirteen studies reviewed a significant difference between females and males was reported, with females scoring higher, indicating females as being more accepting of the disabled than the males. The other six studies reported no differences between the sexes.

In addition, Yamamoto and Wiersma (1971) found no sex difference in their study, while Lazar, Orpet, and Revie (1972) did find a difference favoring young female gifted youngsters. While it appears that the research on sex differences is far from conclusive when the ATDP is utilized, the majority of studies would support the directional hypothesis that the females in this study would score higher than the males.

In the area of social adjustment as measured by the IOI, a directional hypothesis that no sex differences exist is offered. This position is supported by the reports of Weiss (1956) and Yamamoto and Wiersma (1967) in which no sex differences with the IOI were found.

## METHODOLOGY

Subjects: One hundred and five subjects (23 males & 82 females) comprised the initial sample for this study. The subjects were enrolled in an educational psychology class concerning an introduction to exceptional children. The sample was drawn from three such classes. A table of random numbers was utilized to equalize the female group to that of the male group so that the disproportionate number of females would not compromise the use of the t test for statistically treating the data.

Procedure: The ATDP was administered first, with both tests given as a group test by the senior author. It required about 30 minutes to administer the instruments per class, and a uniform procedure was used with all three classes in the sample.

Instruments: The Is of Identity Test is a 100-item, true, false, or undecided response scale to measure social adjustment. The norm for the average adjusted person falls between 40 and 60, with a possible score range of 0 to 100. The ATDP-Form 0 is a 20-item Likert type scale developed by the Human Resources Center in New York to measure a person's acceptance-rejection of the disabled. The modified instrument deleted the concept "physically" in item two of the instrument so that the subject would respond to all items in terms of disabled persons in general rather than the specifically designated "physically disabled" per se. The possible range of score is 0 to to 120, with the high range being more accepting.

Statistical Treatment of Data: Means, standard deviations, and correlated mean t test values were determined for the males and females on both instruments.

(INSERT TABLES 1 & 2)

## RESULTS & DISCUSSION

A study of Tables 1 and 2 will reveal a statistically significance findings ($p < .05$) between the male and female groups on both the ATDP and the IOI scales. The differences in both instances favoring the females in terms of being more accepting of the handicapped and also being better socially adjusted. It should be noted that while the higher scores on the IOI favor the females, the males are also highly well adjusted, thus making the females only moreso.

The results of this study with respect to the ATDP tends to corraborate the findings of the majority of studies reporting a difference that favors the females. In fact, Yuker, Block, and Younng (1966) indicate a serious need for users of the ATDP to develop separate norms for both males and females since it does appear that there is a sex bias in the instrumentation that favors the females. These writers are inclined to agree with this viewpoint. The directional hypothesis that indicated a difference would be found between the sexes on the ATDP is sustained.

The directional hypothesis that no sex group difference would be found for the IOI had to be rejected in that a difference was found as indicated in table 2. This finding does not agree with those of Weiss (1956)

and Yamamoto and Wiersma (1967). It would appear that there is a serious need for further research with the IOI as relates to sex group differences. There might be two reasons for consideration as to why a statistically significant finding resulted. First, the difference might be to a bias in the large female sample, despite efforts to randomize the size down with a table of random numbers to equalize the male sample size. A second reason might be that different statistical techniques were used to treat the data. Weiss (1956) used an analysis of variance design, whereas Yamamoto and Wiersma (1967) indicated a 2 x 3 chi-square schema.

## SUMMARY

The directional hypothesis that a significant difference favoring the female group on the ATDP was sustained, thus supporting a growing number of investigations with similar results. Since the females tend to be scoring higher, it would appear reasonable and appropriate as advocated by Yuker, Block, and Younng that local norms be developed for any target group, giving strong consideration to sex group differences. The second hypothesis that no sex difference would be found on the IOI had to be rejected. The reason for the significant finding is still uncertain. What appears to be needed is additional research with the IOI, using larger samples and more effective sample controls.

## SELECTED REFERENCES


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4. Lazar, Alfred L., and Ernandes, Carol; "The Relationship between the IOI and ATDP Scales", ETC;:XXX (2) June 1973 in Press.

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TABLE 1.

MEANS, STANDARD DEVIATIONS, AND t VALUE FOR MALE AND FEMALE SCORES ON THE ATDP SCALE-O

| GROUP | N | $\bar{X}$ | s.d. | df | t | p |
|---|---|---|---|---|---|---|
| Males | 23 | 75.09 | 14.95 | 44 | 2.29 | .05* |
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* one-tail t test

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# TOTAL COMMUNICATION

## Its Implementation at St. Mary's School for the Deaf in Buffalo, New York

Sister Nora Letourneau, Ph. D.
Superintendent

Presented at

The 51st Annual International Convention
The Council for Exceptional Children
Dallas, Texas
Wednesday, April 25, 1973

# TOTAL COMMUNICATION

## (Its Implementation at St. Mary's School for the Deaf in Buffalo, New York)

To establish a common basis for our exploration of the Total Communication approach as it is being implemented at St. Mary's School for the Deaf in Buffalo, New York, let me give you some general guidelines which govern our use of Total Communication.

First, the aim of Total Communication is to establish language competence as early as possible and to continue developing and expanding this communication process throughout the student's school life.

Second, by Total Communication we mean the use of speech and speechreading combined with fingerspelling, the language of signs (manual English), instructional media, reading, writing, and the utilization of any residual hearing to facilitate the establishment of an effective communication system for the deaf child.

Third, the use of manual English means that correct and complete syntax and grammatical structures are always visibly shown while simultaneously using speech and speechreading.

Fourth, Total Communication is to be used by all persons on our staff coming in contact with the students. To expedite this guideline, all staff members must attend at least one hour of instruction in Total Communication each week.

Fifth, parents, families and friends of our students are asked to learn and use the Total Communication approach in the home.

Sixth, in the educational process teachers and others working with the children are asked to consistently relate the spoken and manual symbols of Total Communication to the written symbols used in reading and writing.

Seventh, a Resource Group, made up of four faculty members one of whom is deaf, selects which of the available signs are to be used at St. Mary's. The choice of signs is based on which signs are most commonly used throughout the United States and which signs fit our needs in terms of language development. After the selection process these signs are taught to members of the Nucleus Group. This is a group of staff members responsible for teaching the signs and fingerspelling to staff, families, and other interested persons.

Eighth, a Core Group, made up of members of the administration and elected representatives from the faculty, is responsible for the implementation of the Total Communication approach within the school. This group meets once a week to discuss, research, and make decisions regarding issues and problems that arise related to the implementation of Total Communication and the accompanying research project.

Now to the "Why?" of St. Mary's decision to adopt the Total Communication approach. Our study began in 1969 when the Core Group undertook an investigation of the philosophy of our school and how this philosophy was meeting the needs of the deaf students we were serving or would be serving in future years. Part of the school's philosophy under investigation stated that:

> "Each deaf child must be seen in the light of his abilities and experiential background and placed in a program that will best meet his needs. Methods of instruction must be geared to the child's potential for learning within a particular instructional framework."

Immediately the investigating team was faced with what seemed to them and many others on staff as our major problem, i.e. an inconsistent use of a method of communicating with our deaf students. Like many other schools for the deaf, we had maintained the oral approach as the method of instruction in our primary and elementary departments allowing teachers to use another approach if the child's lack of oral ability was penalizing his learning in the classroom. In our Junior and Senior High School a simultaneous method was employed, though at no time were students formally taught fingerspelling or the language of signs. It doesn't make sense, does it? Our philosophy was sound, we all agreed; but we were not meeting the needs of each child. Students who were non-lipreaders were being penalized

two, three or four prime learning years before some manual input was begun and then it was done without giving either teacher or student proper instruction in fingerspelling or the language of signs. We were not pleased with what we saw. Over the years we had seen some improvement in students' achievement, but not enough to satisfy us, especially since we were continually updating our curricula, great quantities and better quality educational media were being utilized, in-service training and upgrading of professional personnel had increased and additional staffing was being employed with a growing number of teacher-aides and other para-professional help. For the time, energy and money involved, we should and must see better results.

The task before the Core Group was to determine a course of action for our school to take so that we could meet the needs of all of our students in the best possible way, and to make a recommendation to our Board of Trustees regarding such a course of action. Information was gathered concerning the various methods of educating deaf children in the following ways: Questionnaires to parents, staff and employers of the deaf; personal interviews with deaf adults and staff members; sectional and joint meetings of our staff; poll of deaf teachers of the deaf; panel discussion on methods for parents and staff; and a review or professional readings and research studies. After a year and a half of investigations, the Core Group recommended

to the Board in January, 1971, that St. Mary's adopt the Total Communication approach for an experimental period of time, with all of the student body beginning with our three year old preschoolers. It was also recommended that a research study be developed so that at the end of this experimental period (probably from five to eight years) some objective evidence would be available to determine the effectiveness of the Total Communication approach as it relates to certain key areas, i.e. language development, speech development, reading ability, speechreading ability, and communication in the home. With the assistance of staff members at the National Technical Institute for the Deaf in Rochester, New York, a research study is now underway to investigate these areas. The Board approved this recommendation and we were on our way in an exciting experiment.

Why Total Communication?

Since the acquisition of language is basic to the educative process, a deaf child has an inherent right to be given the opportunity of developing language competence at the earliest possible age. To meet the needs of all deaf children a Total Communication approach is used which utilizes the full spectrum of language modes. Martin Sternberg, an Associate Research Scientist with the Deafness Research and Training Center at New York

University, put it so well in a paper delivered at our New York State Association of Educators of the Deaf Convention last fall:

> "I do believe Total Communication means all things to all people. It is a communicative pathway, a vehicle, whereby one communicative mode automatically and instantly takes over where another mode may falter or fail. Each mode, speech, lipreading, fingerspelling, sign language, writing, sound amplification, is mutually reinforcing and essentially interrelated. We reach out, thus, to the whole person; we involve him, totally, in the process of communication."

Now that the decision had been made the key question became, "How to best implement the program?" The enthusiasm and support of the staff was present, though there were the ever-recurring questions as to the Total Communication approach's effect on speech and speechreading skills. Implementation centered around three essential interrelating groups--the faculty and staff at St. Mary's; the parents, families and friends of our students; and the students themselves.

During the spring of 1971 Mr. James Stangarone, Director of Interpreting Services at NTID, made two visits to school to speak to our staff, the parents, and students on the philosophy of Total Communication. At the same time members of the Core Group made site visits to two programs already utilizing Total Communication and Mrs. Marjorie Clere, Secretary of the Registry of Interpreters for the Deaf in New York State, conducted

a two-day workshop in basic training in fingerspelling for members of our Nucleus Group. This group of sixteen staff members, chosen from a number of volunteers, was to be responsible for training the rest of the staff in the use of Total Communication. They began working with the staff in May in small groups meeting twenty minutes a day, four days a week. During this initial month and a half only fingerspelling was taught. In June a Resource Group made up of three staff members was selected. Since then one of our teachers who is himself deaf has been added to this group. Their major task, and it was and is a big one, was to decide on the signs that would be used at St. Mary's and then teach the Nucleus Group members these signs.

During the summer of 1971 information was solicited by the Core Group from school programs throughout the United States already using Total Communication. We were looking for ideas, suggestions, and problem areas to avoid as we moved into the use of this approach with our entire student body. Sixteen of the schools responded and their insights were very helpful.

Several meetings were held with the research staff at NTID and a questionnaire for staff and parents was devised which would give us some basic information at the beginning of our implementation program as to attitudes and self-perception of individuals as to their skill in

fingerspelling and the language of signs both expressively and receptively, as well as their ideas on speech and speechreading. This type of questionnaire will be given periodically throughout the years ahead, and a similar kind of one has been made up for students in grades 4 - 12.

In September, 1971, we began using Total Communication in the classrooms. Concurrently, classes for staff members were resumed and special class time was set up for the Junior and Senior High School students to be instructed in Total Communication. Primary and intermediate level children were instructed within the regular classroom situation. Teachers and houseparents were asked to keep log books through the year to record students' reactions, attitudes and noteworthy incidents referring to the use of Total Communication.

Classes for parents were begun in November, 1971, and we are currently reaching a little over one-third of our parents. These classes are held at the school for an hour a week, some in the mornings and some in the evenings, Mondays through Thursdays. Other classes are held in five areas throughout the state where groups of our students live.

The implementation program is constantly being evaluated as questions arise. An important concept in the implementation of such a program is flexibility. Decisions to present material in a certain way are and

should be be modified if children are not benefiting. Periodic evaluations will be carried out through observations of the use of Total Communication by staff members in all areas of the school.

Finally, we have set up a long-range research study which will be looking specifically at the areas of language development, reading, speechreading and speech. Basic data was collected prior to the introduction of Total Communication and will be collected each year and stored on a computer for future analysis. Growth curves have been plotted for a special group of 49 Junior High School students for whom past achievement test scores were available for up to five years. These growth curves will eventually be compared to a similar group of students who will have come through our program using the Total Communication approach.

We are already seeing results which we like. At the preschool level teachers report a marked improvement in language development. The babies (three and four year olds) are learning more vocabulary and are putting it together in two and three word sentences. They are using spontaneous language more than imitation, are vocalizing more, and seem less frustrated. At the primary and intermediate levels teachers report better written language, more content being covered, more vocabulary, use of verb tenses improving, and better speech especially when accompanied with fingerspelling. At the Junior and Senior High

School levels some teachers report the students are much more aware of correct language patterns and endings and are making an effort to use Total Communication and encourage others to do the same. We are also encouraging our High School students to volunteer as tutors for younger children during some of their free mods. This has made them increasingly aware of using correct grammatical forms and syntax and has given them a real thrust for Total Communication.

Total Communication can work. We see it working. It is not easy, but we at St. Mary's feel that the deaf children who come to us to be educated are well worth the seemingly endless discussions, the time-consuming meetings and classes, the sometimes monotonous data collection. We are looking for a way--a better way--a best way. Who knows? The poet reminds us:

"Traveler there is no path;
Paths are made by walking."

# LONG TERM CARE AT UNITED CEREBRAL PALSY ASSOCIATION OF GREATER ST. LOUIS

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By

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LONG TERM CARE AT UNITED CEREBRAL PALSY
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## RATIONALE

Profoundly multiply handicapped individuals comprise that segment of the population who are afflicted with profound mental retardation and varying degrees of physical disability. Historically, the treatment and management of this group has been almost as tragic as the disabling condition itself. Efforts to provide for the needs of these children and their families culminated in the panecea of institutionalization. There has long been an awareness that this solution has not eased the problem. The panecea has evolved into a "Pandora's Box".

Far too often the medical model has been used as the basis for treatment and management. It is assumed that these youngsters are not capable of learning and that all of their needs can be met by custodial, geriatric type care.

The institution does provide parental relief and parent-child separation. Many families, however, cannot afford the cost of residential placement. A great number of parents do not want to place their children. Still others find that their child is not eligible for admission. Parents are fraught with anxiety over the difficulties that plague institutions. Severe overcrowding is common. Waiting lists are painfully long. Accusations of inhumane conditions are difficult to ignore. Economic factors have in many instances mitigated against new construction and hindered efforts to maintain existing buildings. There often is not enough money to adequately staff facilities. These problems are compounded by the overwhelming sense of guilt that sometimes surrounds the institutionalization of a child, or the unrealistic hope that somehow the child's condition will improve.

These families face and must overcome numerous difficulties. The reality of having a profoundly handicapped child is enough to strain even the most stable family's ability to cope beyond normal limits. This child's condition takes its toll on the entire family. The needs of siblings must often be neglected. Vacations or other family plans out of the home are usually out of the question. It is often necessary for fathers to pass up opportunities for professional advancement in order to be at home to help care for the child. Parents have no life of their own, and it is not uncommon for them never to go out together because one of them must remain with the child at all times. Physical care alone is a twenty-four hour a day job, and as the child grows older, larger and heavier the problems become more severe. The financial drain for medical attention, care and training (if it is available) presents a continuing problem. Finally, there is the ever-present worry about the child's future when the parents are no longer able to care for him. Too many families receive no help and are left alone with their haunting concerns.

United Cerebral Palsy Association has taken the following position in regard to residency for those individuals who cannot live independently:

"A family or family-like unit contains the environment in which an individual can adequately reach his potential -- physically, socially and emotionally. Therefore, individuals needing long-term services should remain in their own or their parents' home as long as appropriate. This depends on at least the following conditions:

a) The individual is still benefiting from staying at home;

b) The individual feels that his own home is beneficial and wishes to remain there;

c) The family is still able to provide physical and behavioral management;

d) The individual is not severly detrimental to the stability of the family unit or to members of the family;

e) A plan has been developed with appropriate counseling against the eventual day when some other living arrangement becomes necessary."

It has become clear that community-based programs are a necessity. One such alternative to residential placement is the Long Term Care Program at United Cerebral Palsy Association of Greater St. Louis.

## GOALS

The primary goals of the Long Term Care Program are:

a) To effect family-child separation;

b) To provide parental and family relief;

c) To maintain and improve residual physical abilities;

d) To provide family counseling and supportive assistance;

e) To increase awareness and develop self-help skills.

## CLASS STRUCTURE

The program is divided into two categories:

1. Developmental Long Term Care.

2. Youth Activity Long Term Care.

Children assigned to Developmental Long Term Care classes range in age from three to puberty. Young adults from puberty to final placement are enrolled in Youth Activity Long Term Care. Classes in each category are sub-divided into two sessions -- Monday, Wednesday, Friday and Tuesday, Thursday. Class assignments are made on the basis of the needs of the client and his family. Each class has an enrollment of ten and is staffed by a Long Term Care Supervisor and a Driver-Aide. Their duties will be outlined later.

## PROGRAM

The child is made as physically comfortable as possible. Adaptive devices and equipment are utilized to enable the child or young adult to maintain a functional physical position which will permit optimal interaction with the environment. Exercises and physical activity are important aspects of the Long Term Care Program and are included in order to maintain and develop residual physical abilities. Physical activities and games are helpful in developing socialization skills, lengthening the attention span and providing an acceptable energy outlet. Most children enjoy these activities. Parents are provided with home programs and instructed in their use by the physical therapist. Each child is re-evaluated periodically, and his program is updated in accordance with the amount of progress made.

Much attention is given to self-help skills. Toilet training and self-feeding are major goals. Higher functioning youngsters master some dressing skills and aid their less able peers in various areas. Whatever this child is able to accomplish for himself is not only a step toward independence but also one less chore for those involved in his care.

Table time is an attempt to increase awareness through the use of manipulative toys, pre-readiness materials and other stimulating tasks that will hold the child's interest. Simple games provide an introduction to group interaction. Activities are varied at short time intervals. These activities are used to develop awareness, increase frustration tolerance, lengthen the attention span and promote co-operation and socialization.

Parent conferences are held at regular intervals. This affords parents and instructors the opportunity for an exchange of information. Families are encouraged to follow through at home with techniques used in the classroom. Parental guidance and counseling is geared to help the family understand and accept their child, to assist in home management and training, to aid the family in planning for the future and to help secure residential placement when it becomes necessary,

## STAFF

The class is conducted by a Long Term Care Supervisor whose general responsibilities include planning and effecting the day-to-day program.

Professional teachers are usually not successful in this type of setting. They have been trained to view learning in terms of the

gestalt and experience difficulty in breaking down and analyzing a task into small enough components for these youngsters. Teachers tend to at least partially equate their own adequacy in terms of immediate response or feedback from the children. A degree will do little to prepare one for a Long Term Care position.

A soft lap, understanding, compassion, and the capacity to accept and care for these youngsters without succumbing to the frustrations inherent in the situation are of far greater importance than a teaching credential. Formal course work in child development and psychology should be supplemented by an in-service training program which provides a comprehensive orientation in the philosophy, goals and techniques of working with the profoundly handicapped, including the use and care of adaptive equipment and appliances which are commonly required.

A Driver-Aide, whose primary duties are to assist the Supervisor and transport the children, is also assigned to each class. Volunteer help is a must because individual attention is required in almost every instance. A full orientation is provided for Aides and volunteers.

## ADMISSION

All profoundly involved cerebral palsied and similarly handicapped persons living within the Agency's service area are eligible for admission. Referrals may be made by anyone.

Initial intake is administered by the Co-ordinator of Medical, Professional, Social Services or a person designated by her. Preliminary background information, application for service and other routine administrative requirements are completed at this time.

Upon completion of the above procedures, a medical evaluation is made by the Agency's Medical Director. A report of the examination is forwarded to the Co-ordinator of Medical, Professional, Social Services. The report states a diagnosis and makes recommendation for further evaluations and treatment. This will constitute an authorization for trial admission into the program. No enrollment is allowed unless approved by a physician.

An evaluation for treatment and programming will be made by the Agency's clinical team including the Physical Therapist, Speech Therapist and the Developmental or Youth Activity Co-ordinator. On the basis of the individual's response to evaluation and treatment during the trial period he will be:

1. Enrolled in the program, or;

2. Referred to another more appropriate agency.

## TRANSPORTATION

Transportation is provided to as many clients as possible on a first-come first-serve basis within the capacity of the transportation vehicles except:

1. When the family is able to provide transportation and when inclusion of the client on the transportation schedule will exclude another client whose family is unable to provide transportation;

2. When the family is unable or unwilling to provide assistance during the loading and unloading of the client;

3. When the client is obviously unmanageable or dangerous to himself or other clients on the transportation schedule.

## SATELLITE PROGRAMMING

About a year and a half ago it became clear that it was necessary to expand the Long Term Care Program in order to meet the increasing needs of the metropolitan St. Louis area. Existing space in the Center facility was exhausted, so we turned to satellite programming. The first class was opened in September, 1971 at the Brentwood Congregational Church. It was staffed with the Long Term Care Supervisor and Aide from the Center program. At this time another class was initiated at the Center. This class was moved to the church after the new staff was trained. Plans are currently under way to open two more classes at a different location in September, 1973. Long range plans call for the strategic location of satellite programs throughout the Agency's service area.

## NEEDS

The need for more programs is obvious. There are 68 children and young adults now enrolled in the Long Term Care Program. Enrollment will have doubled itself within a two year period with the addition of the new classes previously mentioned. Referrals continue to stream in.

We don't have all the answers. Research and experimental programs are needed to help find solutions. Respite and Crisis Centers are required for brief residential placements. We have really just begun to scratch the surface in this area, but even this small beginning has demonstrated that programming based on the educational model is beneficial.

## SELECTED REFERENCES


Drganc, Donna S. Proposed Day Care Program
United Cerebral Palsy of Akron and Summit County, 1970.

Helsel, Elsie "Avenues of Action for Long Term Care of the Multiply Handicapped"
Reprinted from Rehabilitation Literature Vol. 26, No. 9. 1965. Distributed by National Society for Crippled Children and Adults.

Helsel, Elsie, et al., Opening New Doors To The Cerebral Palsied Through Day Care and Development Centers
New York: United Cerebral Palsy Association, Inc., 1965.

Murstein, Milalma and Donna Drganc
Proposed Satellite Long Term Care Program
United Cerebral Palsy Association of Greater St. Louis, Inc., 1971.

Young, David A. Outline of The Basic Developmental Program Class Structure
United Cerebral Palsy Association of Greater St. Louis, Inc., 1970.

_____ Long-Term Care And Services Position Statement
New York: United Cerebral Palsy Association, Inc.
no date