Children with Severe Cerebral Palsy

AN EDUCATIONAL GUIDE

Editors:
Henning Rye and Miriam Donath Skjørtten

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This guide is the seventh in the Series on Guides for Special Education published by Unesco.

The guides, which are intended for teachers, parents and community workers, aim at stimulating discussion on basic knowledge, methods and techniques relevant to the education of handicapped persons, and offer practical advice for action in this field.

While the major part of the guide addresses issues specifically related to the education of children with severe cerebral palsy, chapter one in particular touches on new conceptualization of disability and new orientations for educational provision. Issues such as early learning experience, flexible school curriculum, integrated education, covered in this chapter, are equally relevant to all children with special educational needs.

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CHILDREN WITH SEVERE CEREBRAL PALSY

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An Educational Guide

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Contents

Chapter Page

Introduction
- Derek Lancaster-Gay .............................................. 1

1. Cerebral Palsy - a Multifaceted Condition.
   - Henning Rye .................................................. 4

2. Communication and Structured Total Communication
   - Miriam Donath Skjørten ...................................... 21

3. Coping with Common Learning Disabilities in
   Children with Cerebral Palsy
   - Gerd Gylder Corneliusen, Marit Lund, Elsbet Nilsen ....... 36

4. Language and Speech as a Tool for Communication
   - Turid Blix .................................................... 49

5. Readiness for Reading
   - Jorunn Fiveland ............................................. 77

6. Eating and Feeding
   - Miriam Donath Skjørten ..................................... 92

7. Teaching Mathematics
   - Gerd Gylder Corneliusen ................................... 97

8. Coping with writing problems
   - Gerd Gylder Corneliusen ................................... 117

9. Preparing for adult life
   - Gerd Gylder Corneliusen, Marit Lund, Elsbet Nilsen ....... 126

10. Educational Aids
    - Gerd Gylder Corneliusen, Marit Lund, Elsbet Nilsen ....... 132

11. Quality of Life
    - Miriam Donath Skjørten .................................... 145

- Glossary
- References
- Addresses of interest
INTRODUCTION
Derek Lancaster-Gay

Barely thirty years ago cerebral palsy and other severe developmental disabilities were regarded as a major barrier to education; at that time the emphasis had been on the intellectual handicap and the majority of children with these disabilities were seen as 'ineducable' and treated as such. This usually meant placement in a special care unit or in a subnormality hospital.

Parental pressures and the work of voluntary agencies interested in these problems resulted in the establishment of special schools for cerebral palsy children and others with similar related disabilities. The 1950s were years of experiment and professional learning during which it became evident that meaningful education for these children was indeed possible regardless of intellectual deficiencies. These were years of trial and error but they were also the years when professionals were able to learn and to develop techniques and skills to deal with the complexities of cerebral palsy.

We have progressed a long way in the years since the first special school was established. Perhaps the most significant realization was the fact that the education of a cerebral palsy child depended not just upon the teacher and her newly acquired skills but upon other professionals such as the clinician, the therapists, the psychologist and the aids technician, working not independently but as a cohesive team with the parent as an essential member of that team. To achieve this interdisciplinary approach to the management of the child was for some a difficult process as it meant the breaking down of professional barriers and the establishment of a working relationship in which each member of the team was dependent upon the others.

During this period the parent, too, assumed a new and vital role for it was with her/his parent that the disabled child would spend most of his time and it was at home that the child would put into practice the skills of living he was learning at school. The parent must know and understand what is going on, be involved in the work of the team so far as this affects the child and be taught to undertake much of this work herself at home. Parents have, after all, an enormous understanding of their own child and as such have a major contribution to make to the work of the team. Nor should the role of brothers and sisters or the grandparents be overlooked.

But to co-operate with parents, specialists need to be able to co-operate with each other, to have a holistic approach to the management of a disabled child and to
regard their own particular skills as just one of a series of skills which, when combined, will address the whole child and not just her/his presenting symptoms. The cerebral palsy child will require treatment and needs education at school. It is important for the teacher to understand the therapy needs just as it is essential for the therapist to understand the practical implications of the child's day in the classroom. The child's will to learn will not be taught at the classroom desk nor discovered on the floor of the therapy room; it will be established progressively by the child's awareness of achievement. This will come from mutual co-operation by all concerned, including the home.

This much we have learned in the past thirty years. Techniques have been developed, adequate equipment and aids to communication produced and teachers trained in this field. But at the same time attitudes towards severe disability have also changed; the very fact that it is now established that cerebral palsy children have the same aspirations to an education as their peers and the fact that disability is no longer regarded as something to be hidden away have combined to demand a new approach to the education of disabled children or, to use the present terminology, of children with special needs.

It was not surprising therefore to find that education in special institutions was regarded as an unacceptable approach and the past two decades have been marked by the search for a more acceptable alternative, one that does not isolate the disabled child from her/his peers. Thus many of those countries which pioneered special schools thirty years ago now insist on full integration of disabled children in ordinary schools. Inevitably the dialogue continues; there remain excellent arguments in support of special schooling and the lobby in favor of integrated education has strong emotional arguments in support of their concept. How successful integrated education really is has yet to be fully tested; so much will depend upon such factors as the training of staff, the availability of the right equipment and the willingness of teachers to learn about the problems of disability. What is clear, however, is that what disabled children might lose by their attendance at an ordinary school will be more than offset by their gains in integration within the community in which they will spend most of their lives.

This guide is an aid to teachers of severely disabled children suffering from cerebral palsy and is intended for those with little experience in this field and without immediate support to hand. For those who are interested in the more specialist applications, further and supplementary reading is recommended. This is a guide and must be regarded as such. It should go hand in hand with personal experience and it is this experience upon which skills are based.
Disabled children have a desire to learn and they have the ability to do so; the role as teacher is not so much to teach as to prepare facilities and encourage the child to learn for himself - personal achievement is a great reward for personal effort.

The authors of this guide have done much to simplify and to explain their skills and those of their colleagues in readily understandable terms for the benefit of professionals working with cerebral palsy, perhaps for the first time, and are to be commended for their approach.
1. What Is Cerebral Palsy?

The term Cerebral Palsy represents a group of heterogeneous conditions, neurological as well as psychological and educational. Neurologically the condition is usually defined as a permanent impairment of movement and posture resulting from a non-progressive brain disorder, due to events during pregnancy, delivery, the neonatal period or the first years of life, or hereditary factors. This definition is commonly used by researchers in this field (Bax, 1964; Hagberg, 1978). The condition is further classified according to clinical neurological signs.

Spastic CP
This is the largest group. The most salient neurological symptoms are marked rigidity of movement and inability to relax their muscles. The degree of handicap varies from only one arm or leg being affected, to both arm and leg on one side, or affection of all four limbs or more or less the whole body.

About 75 per cent of CP children show spasticity as their main neurological symptom.

Athetoid CP
In this group the main neurological symptoms are seen as involuntary movements, which interfere with voluntary normal movements of the body, for example writing, walking and speaking are often affected.

About 10 per cent have athetosis.

Ataxic CP
The dominating syndrome in this group is in co-ordination of voluntary movements frequently resulting in unsteady gait and poor body balance: often eye-hand co-ordination is affected.

About 5 per cent of children with CP show these symptoms, a condition which is comparatively rare.
Mixed forms of CP
In this group, which represents about 10 per cent of children with CP, are included children with cerebral palsy who show a mixture of the symptoms described above.

About 10 per cent of children with CP.

2. Incidence of cerebral palsy

Estimates of the incidence of cerebral palsy have varied considerably, mainly due to differing techniques of case finding, differing definitions of cerebral palsy and changing demographic trends and social conditions. According to studies carried out in some developed countries (Hagberg, 1978; Lagergren, 1981; Glatting, 1976; Healy, 1983), the incidence of cerebral palsy is about 2 per 1000 live births or slightly lower.

With regard to the incidence of cerebral palsy in developing countries, detailed surveys are lacking. The existing sources of information are mainly the estimates made by medical or health experts in developing countries, and not based on systematic surveys. The estimated rates of incidence vary from about 2.5 per 1000 births in groups of immigrants in Israel, born in Afro/Asian countries (Margulec, 1966), to about 5 per 1000 in Mexico (personal communication from Asociacion pro Paralitico Cerebral). It is reasonable to believe that the variations in estimated incidence or prevalence rates vary for reasons that relate as much to the organization and availability of services as to the actual numbers of handicapped people.

3. Causes of cerebral palsy

Handicapping conditions that affect children may have their origins in the prenatal period (25 per cent), commonly defined as the time up to the 27th week of the gestation period. Others have their onset around the time of birth or in the perinatal period (48 per cent) from the 27th week of gestation through the first week after birth, and still others may acquire cerebral palsy during the postnatal period or the first years of life (6 per cent), (Hagberg and Olow, 1975).

A number of aetiological factors originating pre, peri or postnatally are associated with increased risk for cerebral palsy. Prenatal risk factors such as congenital malformations, lack of oxygen (asphyxia) and infection are associated with cerebral palsy, while premature births, prolonged labour, breech presentation and lack of oxygen may represent increased risk at the perinatal stage. During the postnatal period infections such as meningitis and encephalitis, excessive jaundice, rubella, and head trauma can increase the risk for cerebral palsy.

There is, however, rarely a single cause to cerebral palsy, in most cases it is caused
by a combination of contributing conditions. Maternal characteristics such as adolescent pregnancy, low socio-economic status and poor health are associated with increased risk of cerebral palsy in children. In only a small percentage of families is more than one child affected, and hereditary causes are therefore considered rare. Although a great deal is known about the causes of cerebral palsy, in as many as 25 per cent of affected cases no definite cause or aetiological factor can be pinpointed.

4. Additional dysfunctions

Although a definition of cerebral palsy focusing on disorders of movement and posture may be useful from a medical diagnostic standpoint, it leaves out a number of associated dysfunctions or deficits that are common and have to be properly addressed in order to ensure an optimal development and habilitation. Among the dysfunctions frequently described are visual defects, hearing loss, other sensory defects, disorders of comprehension, or the expressive use of language, and cognitive dysfunctions. In addition seizures and orthopedic problems are commonly found.

While motor disabilities are important factors with regard to the potential development towards leading a meaningful, independent life, locomotion is but one single consideration. Ability to communicate and mastery of daily living, including transportation, which is essential to personal independence and obtaining employment, are probably more important to the outcome. In order to understand more completely the function of cerebral palsied people, it is not enough to identify the effect of isolated additional dysfunctions; the interaction of multiple dysfunctions in each individual person's mastery and adjustment must be appreciated.

Some of the more frequently associated dysfunctions are discussed below.

5. Associated dysfunctions

Visual dysfunction

The most common visual disturbance associated with cerebral palsy is strabismus (approximately 50 per cent); nystagmus, visual field cuts, refractive errors and other oculo-motor defects are frequently found.

Children with cerebral palsy often demonstrate an inability to interpret visual symbols. Visual processing dysfunctions may be responsible for inability to identify letters, but at other times the difficulty may be due to cognitive dysfunctions. The educational implications of visual dysfunctions may easily be
underestimated, and it is therefore important that visual abilities in children with cerebral palsy are assessed as early as possible.

**Visual-perceptual and visual-motor dysfunction**
Many children with cerebral palsy demonstrate problems with matching shapes, distinguishing shapes that appear similar, seeing a drawing as separate from its surrounding background and differentiating between varying directions of lines or forms, for example distinguishing ‘b’ from ‘d’. Other children may have normal perception of forms, but great difficulties in drawing and writing, completing puzzles and building with blocks, bricks, etc.

These problems are known as visual-motor dysfunctions, and are more often found in children with spastic than athetoid-cerebral palsy. This kind of dysfunction is also frequently found in children without diagnosed motor, visual or cognitive problems, and are considered to be due to central cerebral dysfunctions that mainly manifest themselves in activities demanding a high level of co-ordination.

**Auditive dysfunctions**
Hearing impairment is frequently found in populations with cerebral palsy.

Significant hearing loss may easily be overlooked in children with speech defects and/or cognitive disability. If educationally significant hearing loss is not diagnosed at an early pre-school age and proper educational help given, eventually combined with a hearing aid, the language development may be seriously affected.

**Other sensory dysfunctions**
Any child with significant left-right asymmetry is at risk for sensory impairment. Among cerebral palsied children sensory impairment is more prevalent in children with hemiplegia. The dysfunctions often reported relate to stereognostic perception (e.g. tactile-kinesthetic perception of objects), two point discrimination, sense of position, sharp-dull discrimination, pain, light touch and temperature sense, (Shapiro et al., 1983). Assessment of the sensory functions mentioned above may have great implications for educational measures as they are of significant importance for children's ability to explore the environment.

**Communication disorders**
To many children with severe cerebral palsy the communication problem is more handicapping than the inability to walk. In addition to the problems related to hearing loss, speech disorders and language disorders are often serious obstacles to communication. These dysfunctions are not independent and may coexist in the same child, so that when improvement in, for example, hearing does not always lead to more advanced speech or speech perception, the reason may be a dysfunction
in the central processing of spoken language (see Chapters II and IV).

**Speech defects**
Many speech defects relate to reduced control of facial and respiratory muscles, or the muscles of the tongue or lips. The articulation problems may range from minor difficulties to a complete absence of speech. Lack of speech may be due to a combination of factors that in addition to articulation defects also may include language dysfunction and impaired intelligence.

**Language dysfunction**
Language dysfunction seems to be a frequent problem in communication disorders in children with cerebral palsy. This is an important factor to take into account when treatment of speech and language disorders is planned. When deficits in central processing of language are present, it is unlikely that articulation therapy alone will be effective or sufficient to secure a satisfactory improvement of communication.

Children with central processing deficits need an educational approach suited to extend their knowledge of concepts as well as their use in meaningful communication. Even communication by alternative means may be difficult for children with severe central language dysfunction.

**Emotional and behavioural problems**
Children with severe cerebral palsy grow up in a life situation that is very different from that of other children. They are already from the beginning hampered in their exploration of the environment, in communication and interaction with family and peers, and in developing a sense of competence and self-confidence. When children with brain damage are reported to develop behavioral disorders four to five times more often than children without brain damage, this may well be related first of all to the fact that brain damage often reduces the ability to learn from experience, to solve problems and overcome obstacles in daily life, and to be able to adjust to new situations in a flexible way. Their reactions are, however, normal reaction in relation to the frustrations they experience because of their disabilities.

The idea that emotional and behavioural problems in children with brain damage are in principle different from problems in children without brain damage is not supported by modern research. Although cerebral palsy may affect a child's mental ability to understand and solve problems originating in the interaction with others, it is in many cases clear that the emotional disturbances are secondary to difficult situations. Examples of situations demanding new adjustments could be: communication difficulties, hospitalization, surgery, entering school, change of school, puberty and adolescent concerns about feeling isolated, developing sexuality and a wish to become independent while experiencing continued dependence because
of motor and other handicaps.

Professional support and guidance as well as close co-operation with teachers could probably diminish the secondary emotional disturbances often noticed in children with cerebral palsy.

Cognitive dysfunction
One of the most commonly associated deficits of cerebral palsy is cognitive dysfunction. Although there certainly are exceptions to the general finding that the children with greatest physical handicaps also have the poorest mental functioning, there seems to be a systematic relationship between the extent of the brain damage and the development of intelligence at the group level of research.

Subtle dysfunctions in central processing are difficult to assess however, especially in young children, and although most surveys report that approximately 40 to 50 per cent of cerebral palsied children are of subnormal intelligence, more than 25 per cent are functioning well within the normal ranges, and many of these are able to pursue academic education. A proper assessment of strengths and weaknesses in cognitive abilities is essential for developing an appropriate educational programme and expectations. This is essential to avoid frustrations for child, teacher and family.

6. Impairment, disability and handicap

The process towards handicap starts with impairment, which may lead to disability and which again may lead to handicap.

- **Impairment** refers to any loss or abnormality of psychological, physical or anatomical function or structure.
- **Disability** is any lack or restriction of ability, caused by an impairment, to perform an activity in the manner or within the range considered normal for a human being.
- **Handicap** is a disadvantage caused by a disability that prevents or limits an individual's fulfillment of a role that is normal, depending on age, sex, and social and cultural factors.

Although prevention of impairment should be a main objective of social and health services in any country, impairments seem unfortunately inevitable throughout the world, and even more so in developing than in developed countries. Given this situation, what can very often still be done is through interventions, such as early home training programmes, pre-school education, schooling, and training for a
maximum of independence and meaningful activity. The goal is to prevent impairments and disabilities from becoming handicaps, or to reduce the handicapping impact as far as possible.

7. Early learning: important but not easy

Although it is possible to list many of the problems that are common in children with severe cerebral palsy, as done above, it is evident, however, that different aetiological factors, inherited characteristics and environmental circumstances must lead to widely differing resources and developmental capacities, physical as well as mental. Despite the fact that the descriptions of development and the characteristics of children with biologically-based delays must remain general, it is possible, however, to describe some patterns that are similar to many of them.

Examples include difficulties in interactions between caregivers and children, delay in speech and language development which may easily lead to a mismatch between the parents' way of communicating and the children's capacities, lack of adequate control of attention and effective use of the social and physical environment, and delayed or deficient ability to learn systematic strategies in problem solving tasks. Moreover, children with severe cerebral palsy also show extraordinary difficulties in establishing reciprocal social relationships of some duration, problems that may be rooted in comprehensive physical disabilities, communication disorders, mental delays or very limited experience in social exchange.

Whatever developmental theories are used in order to conceptualize development in children, a common central denominator with regard to preconditions for early development is the ability and opportunity for interaction with people and objects. Theories about bonding and attachment as well as theories about cognitive development are based on the notion of the need for early interaction with caregivers as well as experience with the material environment.

The traditional focusing on aetiological factors and disabilities may easily lead to a reduction of understanding the development of handicap in impaired children as a result of limited ability to explore and experience the social and physical environment, and not just the result of a pathological or disturbed brain function. The extent to which the social and material world takes on meaning to a child depends on personal experience. An extremely limited interaction with the environment means reduced ability to understand and adapt to new experiences and less shared understandings with family, peers and the wider community. In order to develop meaningful, reciprocal social relationships, it is necessary to form attachments, to develop empathy with others, to learn the meaning of common concepts and to develop insights into other people's situations and the ability to act...
in a flexible and reciprocal way.

Conceiving of how young children learn about the world, especially taking into account the theories of cognitive development of Jean Piaget, a theoretical framework also used in early education programmes (Hohmann, Banet and Weikart, 1979), it becomes evident that how to make 'active learning' become a reality to severely handicapped children is the crucial question. Today the terms 'active learning' and 'child initiated learning' are recognized as indicators of an educational approach that puts children's own activity in the centre of the learning process.

In position statements issued by National Association for the Education of Young Children in the United States in 1986, child-initiated activity is highly recommended as appropriate practice in early childhood programmes. The following citations make this position clear:

- 'Adults provide opportunities for children to choose from among a variety of activities, materials, and equipment; and time to explore through active involvement.' (Schweinhart, 1987, p. 10)
- 'Children select many of their own activities from among a variety of learning areas the teacher prepares.' (Schweinhart, 1987, p. 28)
- 'Much of young children's learning takes place when they direct their own play activities.' (Schweinhart, 1987, p. 6)
- 'Learning takes place as children touch, manipulate, and experiment with things and interact with people.' (Schweinhart, 1987, p. 27)

Recent research and developmental theories have served to clarify and extend the scientific basis for the importance of early experience. Today there seems to be a general agreement that the following ingredients are essential to all early childcare/giver interactions:

- Parental responsiveness contingent on child-initiated activity
- Adjusted quality and quantity of verbal interactions
- Provision of a wide array of toys and other materials for child activity
- Parental or caregiver sensitivity and expression of warmth and affection
- The existence of social support network (Guralnick and Bennett, 1987)

'Active learning' refers to young children's needs for concrete or 'hands-on' experiences with people and things around them. Children's learning begins with experiencing real objects, equipment, tools and the use of things through acting upon them. For example, to learn about a ball, a child needs to play with it, push, roll, throw, etc.
Schematic presentation of some important influences in a handicapped child's formative years

**Child biological/health**
- Child's health and nutritional status;
- Impact of disability

**Parental child rearing**
- Perceptions of child competencies; potential development; goals; practices; care and early education.

**Family situation**
- Parents' education, employment; income; family size; housing; cultural traditions; attitudes to handicapped; available professional support.

**Child's social and cognitive development**
- Interaction with environment; opportunity for active learning; activity level; social, cognitive and practical competencies; learning style; interests; development of self-confidence.

**Schooling**
- Availability and quality of schools;
- Level of integrated education;
- Teacher education and attitudes to the handicapped; school facilities and equipment; individualized curriculum and sufficient assistance in the classroom; learning daily life as well as formation of social relationships; development of self-confidence.

**Adult quality of life**
- Level of independence;
- Employment;
- Meaningful activities; income;
- Housing; aspirations;
- Family formation/single; taking part in academic skills;
- Community life;
- Enjoyment of life.
Active learning arises out of a child's interest in things and leads to exploration and experimentation; it represents valuable opportunities for positive interactions with caregivers. Such interactions in daily life situations not only foster emotional attachments, but lend caregivers continuous chances through their mediation of experiences to assist children in meaningful learning.

The question of how we can provide opportunities for severely handicapped children that allow an optimal development of abilities to discover and construct their own personal knowledge of the world is a challenging one for teachers as well as parents. The experience of active learning is essential to mental development in all children; for children who did not have this opportunity when younger, the provision of situations encouraging active learning are of central importance.

In order to be able to know what to do in assisting a child's learning in the best way possible, it is necessary to know about the child's actual abilities to establish contact and communicate, the possible ways the child can convey his or her interests or wishes, and how to influence the situations of daily life (in the classroom as well as at home) and what kind of toys, things, tools and learning aids, etc. a child can use in a controlled way. To obtain this information, a comprehensive assessment is necessary, covering the child's physical condition and needs, as well as mental functioning, home environment and needs for personal and practical support at home as well as at school.

In many places even in the affluent parts of the world, the necessary facilities for comprehensive assessments, counselling and follow-up of children and their families that should be based on regular assessments are not available. Naturally this is even more the case in developing countries, where the scarcity of professional assistance, especially in the rural districts and the urban slums, is the normal situation. In practical terms this means that many handicapped children grow up in families left to manage on their own as best they can, without counselling or advice from professionals such as paediatricians, psychologists, special educators, social workers, etc.

In such situations the opportunities for growth and development rest mainly on the resources of the families, the parents' understanding of handicapping conditions, their attitude and conception of upbringing of children, available time and energy for interacting with and assisting the children, and the family or community network to support children and parents.

Parents' or caregivers' perception of their children, including handicapped children, is to a large extent determined by the predominant conceptions of the society. These conceptions include how the particular society regards a disabled person's
capabilities and limitations, and may often reflect more of 'inherited' beliefs and myths than objective knowledge of the child's condition. If the parent's or caregiver's perception of a handicapped child implies lowered expectations of performance, such expectations may have a self-fulfilling influence on the child's behaviour and development. Parents may also become so involved with the specific handicap of a child that they fail to take care of other needs the child may have.

Often parents' attitudes and conceptions are reflected in stereotypical ways of interacting with children so that their relationship with a handicapped child may lead to reduced experiences, which is likely to influence the child's ability to adapt to the new situations, including the classroom or school environment.

Together with a feeling of deep love and compassion that often go hand in hand with feelings of guilt and self-pity, parents stereotypic conception of a handicapped child may lead to overprotection. Such a child may receive more than sufficient attention, but the parents' attitude and behaviour often implies an amount of protection from challenging experiences which may have a limiting effect on the child's opportunities for acquiring independence and mastery of practical tasks as well as social interactions.

Bringing up a handicapped child represents a delicate balance between overprotection on the one side and excessive demands of independence on the other. Western culture today is very preoccupied with fostering independent children, while children with severe disabilities inevitably are more dependent on others than are children without.

Increased dependence due to severe disability should be accepted as part of the handicap and need not prevent trying out all possible routes to optimal independence as an ultimate goal. A handicapped child needs to feel the caregivers' unconditional acceptance as a person, notwithstanding his or her handicap, in order to be able to strive for independence and self-reliance.

Studies of the effect of early intervention with cerebral palsied children in the form of home-based or centre-based programmes (Harris, 1987) and of the effects of early education programmes in segregated or integrated classrooms (Hanson, 1985, Ispa and Matz, 1977) indicate that early intervention and early education programmes may enhance handicapped children's motor and mental development and in important ways support and encourage parents in their role as caregivers and teachers to their children, providing valuable experiences in interaction with peers and teachers as well as constructive use of toys and tools.

While scientists still discuss how to evaluate outcomes of early intervention and
early education programmes, the results of numerous studies available today indicate that early intervention is worthwhile, even with severely handicapped children. Although most handicapped children in developed countries are offered adequate early care and education, this is not the situation in most third world countries.

Even though the authorities in many developing countries recognize the potential developmental benefit for all pre-school children, not just those who are handicapped, which may be available through the implementation of early care and education programmes, it is obvious that the present economic situation in a majority of these countries does not allow the kind of expenditure necessary to secure early education for handicapped pre-school children or children in need of educational support for other reasons.

This means in practical terms that most severely handicapped children in developing countries have probably received very little, if any, assistance in developing their physical and mental abilities, except what parents and other available members of the family may be able to initiate and carry out themselves. When these children enter primary school, the school faces the task of meeting basic needs in the field of personal experiences and learning, which in many developed countries is already taken care of by kindergarten and pre-school programmes.

8. The need for a flexible primary school curriculum

What and how severely handicapped children should be taught when they enter primary school depends at any given moment on the child's physical and mental functioning, previous experience and learning capacity. As all children are different, and handicapped children more so than non-handicapped, individualization of the curriculum is necessary in order to match each child's needs, capabilities and preferred way of learning.

A preconceived, step by step, rigid curriculum and a set of prepackaged materials will to many severely handicapped children mean a violation of their right to take an active role in the learning process. In order to be able to programme the curriculum to the changing needs of the children, the teachers have to evaluate the children's progress and way of learning repeatedly so as to adjust their educational efforts to children's changing interests, capabilities and learning style.

In view of the fact that many severely handicapped children do not possess the cognitive skills that traditional schools demand, it is a great challenge to teachers and school administrators to tailor an education programme that meets with the children's level of functioning. This challenge is even greater when taking into
account that many teachers in developing countries face a situation with very few material resources, up to fifty children in a classroom, outdated textbooks, and little experience in teaching children with severe handicaps.

The need for a less formal teaching style, less authoritarian teacher attitude and less focusing on abstract and representational use of language in first grade is probably not only because some children in the classroom are handicapped. According to available reports (Halpern and Meyers, 1985), there is good reason to expect that many children who are not suffering from visible handicaps are nevertheless disadvantaged because of malnutrition, poverty and lack of simulation of the cognitive skills that schools demand.

Many of these children, alongside those with severe handicaps, have not had much active experience with different kinds of materials to explore or experiment with; many have a very concrete language and are not used to describing experiences and feelings or representing experiences through pretending, play, making models, drawings, etc., or to think of how things compare to each other, where things are in space and time, how to use things to make other things happen, etc. which are examples of mental activities central or basic to learning in school.

A change of school characteristics, to make them more compatible with the educational needs of the children they are supposed to serve, will not only make the transition to school easier, more satisfying and meaningful for children in general, but also make the integration of children with special handicaps a way to achieve the ultimate goal of full integration later in adult society.

9. Integrated education - an introduction to the community

Towards integrated education in western countries

After several decades with segregated and institutionalized education for severely handicapped students, most developed countries are today in a transition from segregated care and education towards full integration when possible. While educational services and social support in many countries previously were based on charity, the rights to equal education and social assistance, adjusted to each student's individual needs, are today regulated by law.

Although the situation for severely disabled in general thus has improved over the last decade in most developed countries, there is still a long way to go to reach equal educational opportunities for all handicapped students. The school system is a complex organization and changes often take a very long time, even though equal opportunities in education are mandated by practice.
Teachers' personal attitudes, routines and teaching habits are often very real obstacles to major changes in a school system. Furthermore, changes are often delayed by politicians' reluctance to grant sufficient funds to implement the educational improvements which they themselves have decided. Even though it is still easy to point out many shortcomings regarding educational opportunities for handicapped children in the developed parts of the world, many improvements have taken place.

Handicapped children are today normally educated by teachers who have met public certification standards; funds needed to provide special and often more individualized education are secured in state budgets; school buildings, equipment and educational material are kept in proper condition; transport to and from schools is arranged without parents' efforts and expenses; etc.

The transition from segregated schools to some kind of integrated education has proved however a slow process in many countries. Today one may find a wide variety of attempted integration in different countries. In some places, the school authorities are moving students from physically and socially isolated special schools to schools located in the proximity of normal primary schools, assuming that this will lead to increased social and educational exchange between the two schools and their students.

Another solution has been to place self-contained classes of handicapped students into the elementary school itself, in order to reduce the physical distance of an isolated school building and to make it easier for the handicapped students to become a part of the social milieu of the primary school, while still keeping the possibility of some degree of segregated education for these students.

There is also today a general acceptance of the fact that if we want integration, normal children need the experience of interacting with handicapped children, as much as the other way round.

The most common models of integration for the most severely disabled still seem to be based on an assumption that these students need to be grouped together, or only partially integrated, in order to receive appropriate educational services. This assumption seems, in practical terms, to imply that all severely disabled students have similar educational needs, while the similarities mostly consist of special kinds of physical disabilities or behaviour problems. The educational needs usually call for a very individualized programme.

The traditional assumption that grouping similarly handicapped children in a classroom makes appropriate teaching easier is today challenged by modern educators (Certo, 1983). The notions that homogeneity produces a better learning
environment, that cost effectiveness is improved by serving a low-incidence population at one school site, that it is easier to make special treatments available when the students are concentrated in one school, etc., are today met by a series of well-founded arguments.

A few of the most important arguments against homogeneity are: segregated educational services deprive disabled children from learning through relationships with normal peers; it is often more difficult to manage the problems related to several handicapped students in one classroom - for example behavioural problems, lifting, feeding and carrying severely motor disabled, etc., and at the same time be able to teach in an efficient way; cost effectiveness is not necessarily improved in special schools; modern schools already have only one floor and can easily be made accessible for and adjusted to the needs of even the most severely handicapped students; and segregated education may lead to a very shortsighted educational approach, that first of all deprives the students from making experiences which are relevant to life in the community outside the school.

Although many severely disabled students, for example students with severe cerebral palsy, often need help to perform practical tasks, the educational approach may turn out to become an educational problem when all, or most, obstacles relating to daily life are removed in a streamlined, segregated setting.

When streamlining programmes goes too far and does not leave the students any opportunities to respond independently to difficulties, or at least partially participate in meeting their personal needs, they are at risk of not learning the basic responses for routine tasks. It is thus less likely that the children will develop a personal ambition to overcome the same difficulties when exposed to them in other situations, either by learning to compensate for missing skills or to request assistance in an appropriate way only when absolutely necessary.

Teaching severely disabled children in an integrated classroom allows the students to observe how more able bodied peers carry out their schoolwork and solve social and practical problems. Although there is a need for an adjusted curriculum and demands on practical skills, interaction with normal peers may become an important motivational push to try to become more independent and to make an effort to learn social and practical skills. In spite of all good educational and humanistic intentions embedded in the traditions of segregated education, there is also a great risk that general over-protection may lead to increased, learned dependence.

If state schools are supposed to prepare handicapped children, as far as possible, for the task of leading an integrated and independent life in an adult society, it is
necessary to provide the opportunities to learn how to cope in that society. In addition to learn basic academic skills, such as reading and writing, it is also necessary to learn normal social conduct and the general rules of social interaction in the community, to communicate, to be able to move around, to cook, to use transportation facilities, etc.

In order to achieve the goal of full integration of severely handicapped people in a society, it is necessary to recognize the importance of normalized performance standards, to analyse what normal performances implies for skills and to determine how these skills could possibly be learned or compensated for.

In general the goal of teaching is twofold, on one hand to teach disabled children how to live with a disability and thus preventing it, if possible, from becoming a handicap: on the other hand to teach normal children what it means to a person to be handicapped. To be able to assist severely handicapped children in using their potential developmental resources, it is necessary not to focus too much on disabilities, but rather on how to learn relevant skills.

In order to prevent disabilities from becoming handicapping conditions in a society, it is necessary for teachers as well as parents to be creative, realistic, persistent and understanding. This is important to give the necessary backing to students in their struggle for mastery of skills, not just skills that are developmentally but also, as far as possible, age appropriate and socially acceptable, in the school as well as in the surrounding community.

Some guidelines for integrated education

There are different views on what important characteristics of modern educational services are for handicapped.

Certo has summarized some minimum standards from different sources, which deserve serious consideration.

The principal of equal rights to all students to grow up and be educated in the least restricted and segregated environment possible determines that:

'Severely impaired students should, whenever possible, be geographically as well as educationally integrated in ordinary classes with general elementary and secondary schools.' (Certo, 1983).

When severity of impairment precludes full integration in the ordinary classroom, students should, whenever possible, have their social and educational basis in the ordinary classroom, and get auxiliary and remedial teaching outside the classroom - individually or in groups.
Severely handicapped students should be educated in self-contained classes within general elementary and secondary schools, with accompanying planned systematic contact with non-handicapped peers. Certo adds the following points:

'The educational convenience of students should be given priority over administrative inconvenience in service-system decisions.

'Instruction should be organized to program consciously for independence.

'Individual educational plans should be jointly developed by parents and educators to reflect the needs of students to function in a variety of current and subsequent integrated school or community environments.

'Instructional contents should be referenced against functional, age-appropriate skills required for performance in integrated environments selected from at least the following domains: domestic living, vocational stores/services, transportation/mobility, and leisure.

'Regardless of presumed physical, sensory, or cognitive deficits, students should be taught, through skill adaptations when necessary, to participate at least partially in integrated environments.

'Interpersonal interaction instruction should assure that students interact realistically with other individuals in integrated settings.

'Community-related functional skills should be systematically trained in community environments, with the amount of training time increasing with chronological age.' (Certo, 1983).

The above criteria should not be regarded as complete. Different social and cultural contexts may certainly make it necessary to add others. The items listed above do reflect however, some of the most important experiences derived from implementing educational services for severely disabled students in western countries, and could probably serve as guidelines for school authorities in countries that are now in the process of developing educational opportunities for this group of students.

It is to be hoped that developing countries will learn from the mistakes made by the so-called developed countries in setting up institutions and segregated schools for severely handicapped children, which many countries now are struggling to phase out. By avoiding the detour of setting up expensive segregated schools for severely handicapped, unnecessary cost could be saved; and even more importantly, derived thereof educational practices have often proved to have the side effects of alienating and isolating handicapped students in the society, instead of preparing them for an integrated life, and thus do not deserve to be copied.
INTRODUCTION

The human baby is born social with a directiveness, or a certain quality of attention, towards his caretaker. The baby is also dependent upon this caretaker for food and touch.

It is, however, important to realize that the baby, from the very beginning, takes initiative for interaction. He does this when the need arises, when he is hungry or uncomfortable in any other way. He does this without having learned it. At first he will do it as a result of a reflex action. The caretaker responds and answers to the baby's needs. The baby's action bear fruits. Not only does he, after a while, realize that through actions he can influence surroundings, he also learns something about his own importance and value for these surroundings.

One can say that the baby's discomfort (e.g. hunger) will:
- Cause him to take initiative and act,
- Get a response that will make him comfortable again,
- This response will in addition give him other pleasant experiences like cuddling, smelling, hearing pleasant voices, etc.
- All this social response will start building up the baby's self esteem.

Gradually this will develop into a more conscious social interaction, which will grow into communication. Interaction and communication are basic for development and learning.

It is important to notice that the response the baby receives from surroundings will depend considerably upon the baby's own quality and quantity of initiative and action. In other words, the baby and the caretaker will both from the very start have influence upon their interaction. Through interaction, they get to know each other's reactions and temperament, and mutuality and attachment will develop. In other words, they will get to know and trust each other.

During this process, the child will also gradually start using the codes of communication he meets. Learning and using these codes will require imitation.
Babies will develop controlled imitation after having experienced interaction, because interaction will also include the care taker's imitation of the baby's expressive behaviour. One cannot merely ask the child to imitate without the child having experienced to be imitated.

Children with CP will often lack most of the above-mentioned experiences. Because of their handicap, they will not have enough, if any, self-initiated experience of: interaction on the basis of mutuality, taking initiative that is being responded to, manipulating the physical world or communication.

**Communication**

Communication means first of all to share. We share and interchange feelings, thoughts, opinions or information by sets of codes and symbols that all partners can understand and handle.

When receiving formal education (kindergarten or school), children with CP are very often taught techniques of communication without having experienced interaction, mutuality and the basic element of communication.

Because of their handicap these children have not manipulated the physical world and therefore they know very little about it. Knowing little about the world will make it difficult for them to make choices. Knowing little about the world and communicating poorly will deprive these children of having influence on their situation.

Teaching techniques without knowing the process of communication may result in: the child not learning the techniques; or even if he learns some of the techniques, the child will not really be able to use them and therefore will not be motivated to make the effort of learning them; the child may be able to use them in certain situations, but not spontaneously.

What a frustration for the children, their parents and their teachers!

The conclusion must be that when starting to teach these children, no matter how late one may start, the teacher (sometimes the care taker) will have to first observe and assess the child's communicative manner and mastery; observe and assess the situations in which the child communicates best, or may best be able to establish communications; then try to establish interaction with the child and building up the fundamentals of the process of communication; and only then teach the child some codes.
The ideas, techniques and methods one can apply are based on what sometimes is called Structured Total Communication.

BACKGROUND

Structured total communication has arisen from working with congenitally deaf-blind children and has also been called education for the deaf-blind. It has been shown, however, that this kind of education is also important when working with children with other serious functional disabilities and that the principles can be used, and are used, in all education.

In structured total communication, philosophy and action are completely inseparable.

This is education in the widest meaning of the term. The first concern is to establish mutuality. Mutuality will require, among other things, the establishment of action and initiative. It will require an understanding of the world we live in. It will require the establishment of codes. In other words, it will require the development of a 'culture'.

This is a question of a way of being together and doing things together based on mutuality with children (youth or adults) with serious compound functional disabilities. These compound functional disabilities are of a kind which make it difficult to establish mutuality.

The difficulties arise because the child's perceptual and/or motor disturbances tend to confuse the person(s) giving the care. The child represents an unknown 'culture'. The care person experiences cultural inhibitions, for example, in translation, timing, direction of focus and in the choice of codes.

Structured total communication is a systematic and individually adapted procedure for establishing mutuality and all that this implies.

Structured total communication is a deliberate procedure based on our knowledge of the establishment of mutuality and communication with the newly born child.

The objective is to preserve the quality of this mutuality as we experience it among normally developed children, in spite of having to change elements such as time, direction, number of repetitions and channels of communication.
FUNDAMENTAL PRINCIPLES

The 'complete' child is more than the sum of all its functions

Whenever we plan the child's programme, which will include single activities, timetable, quality and quantity of learning and training, aids, body-position, etc., we must take into consideration the whole child, including what the child masters and is interested in. We must consider the integration of the child's physical, social, emotional and intellectual functions and needs.

This will require, among other things, mutuality involving cross-disciplinary cooperation, and taking into consideration the child's daily rhythm, past and future.

Planning for life

The present, the past and the future are all important for what we do with the child and how we do it. We must know as much as possible about the child's life situation. We must not waste their communicative effort on what for them are meaningless activities.

It will also be important to take into consideration the child's future practical and social possibilities in order to be able to give the child a meaningful education. This consideration must not develop into a limitation on education, but rather the contrary.

Meaningful education together with maturation have great impact on development!

All people have a right to communication based on the channels of communication most accessible to them

For years one had the attitude that the only respectable way to communicate was verbal language; spoken and written. Experience has shown us otherwise. Many people, professionals as well as laymen, had the attitude that if a child learned another way of communication other than speech, this will inhibit the development of speech. Experience has shown otherwise.

Interaction and the development of thinking do not depend upon verbal language.

On the contrary, other ways of communication will help the child to experience, understand and practise communication, and give enough confidence and motivation to start talking, if these possibilities are present.
All people have a right to receive help to develop those channels of communication which will give them the most suitable form of communication.

We must realize that the most accessible channels for establishment of communication will not always be the best one for the child in the long run. Therefore one may wish to start through one channel and later help develop others.

Children and adults - pupils and teachers - both are parts of a DIALOGUE and a TRANSACTIONAL RELATIONSHIP. This must also be true for children with handicap.

The following must be considered:
- Both are influenced by the culture in which they find themselves. Culture will include not only the culture of a nation, region or ethnic group, but will also include what is specific for the behaviour of communication in a certain village, school and, most important, a family.
- There will also be traces left by the culture in which they found themselves in the past.
- Both influence each other over time.
- Both affect the premises for their interaction.
- Both affect the relationship between them.
- Both are the object and the subject in turn.
  In a transactional relationship where every one takes initiative, every one will influence and be influenced; therefore, one will change constantly between being an object (being influenced) and being a subject (influencing).
- Both influence the present.
- Both affect their own and other's future development.
- Both take initiative for action, interaction and communication.
- Both are dependent on the others response.

The above refers to dynamic relations, based on dialectics, dialogue and transactional models in contrast to mechanical relations based on administration of information and training.

In a relationship of interaction where one partner possesses a greater framework of understanding and a better developed framework of reference for communication, he/she will put a meaning to other's action.
What is happening in such a relation is that the care taker or teacher will translate, interpret and/or over-interpret the child's actions. These action may be as subtle as pointing with a look, moving a finger, changes in breath, etc.

**translate:**
translate what has been expressed from one form of expression to another, e.g. translate what has been said from one language to another.

**interpret:**
give a meaning to an expression or activity which can reasonably be assumed to have been intended.

**over-interpret:**
put a meaning to an action which it is unlikely the other person meant to express by the action.

Translation, interpretation and over-interpretation can only take place within a framework of reference which is culture-dependent, connected to action and connected to or associated with experiences and situations which one has experienced before.

One should try to achieve mutuality when translating and interpreting one's own and other's actions. The proper conditions must be arranged for this to take place.

Such conditions will usually involve structuration.

**STRUCTURE**

Structure will first of all be necessary in order to find codes for the culture that can be developed between the child and the adult.

When the child uses its channels of communication in a way that is unfamiliar to the adult, structure will be primarily necessary to give the adult an opportunity to reorientate himself.

Structure will help the ADULT and
- Provide the framework and clues which the adult needs in order to understand the meaning of the child's actions and communicative behaviour.
- Help the adult to make an over-interpretation which is as probable and logical as possible.
- Provide the framework and clues which the child needs in order to be able to understand the meaning of the adult's actions and communicative behaviour.
It is important for the adult to be understood by the child. The adult also needs to experience interaction and mastery.

Structure will make it easier for the CHILD to
- Understand the world - the physical and social world in which he lives
- Recognize co-actors, places, actions and situations
- Have expectations
- Take the initiative for action, interaction and communication
- Understand and interpret signals, symbols, actions and language

Structure will help both the adult and the child to obtain an overview, to understand and to interact.

But, if structure becomes a goal in itself, this may obstruct spontaneous communication and associated thought.

The goal of structuring
It will usually be necessary to place activities into a structure to make it possible for the adult to:
- obtain an overview and thus make it easier to detect the child's signals
- allow translation, interpretation and over-interpretation of the child's signals
- obtain better knowledge of what the child enjoys and what he does not enjoy
- improve the possibilities for observation and for planning: be able to use herself/himself in spontaneous interaction
- acquire security, because it is easier to feel that one is doing something worthwhile.

It will usually be necessary to place activities into a structure in order to make it possible for the child to: obtain an overview of his life, acquire expectation, understand the world in which he lives, be understood, experience that it is meaningful to take the initiative for action and experience that it 'pays' to make an effort in order to act and communicate.

It is of vital importance that structure does not overshadow the child's initiative, expectation, association and inventiveness.

WHAT AND HOW CAN WE STRUCTURE

We can structure the child's activities and timetable. We want to give the child an overview of each individual activity, of the day, and gradually of the week (later the month, season, etc.). We want to give children an overview of their various social
contacts of the specific world in which they live.

Therefore, as early as possible, we must structure in relation to PERSON, PLACE, ORDER/SEQUENCE, TIME AND SPACE.

1. Person

Attachment to specific persons and thus the establishment of meaningful social relationships will provide a basis for communication and therefore for learning. This will be impossible for the children to achieve unless they are able to differentiate one person from another. The following may be important in this connection.

Each person having more or less permanent contact with the child should have a distinguishing mark or sign fitting one of this person's distinct characteristics. This characteristic must be found, chosen and marked by a sign or symbol by the child together with the adult during a process of interaction over a period of time.

One should 'discover' together with the child the factor that is specific for the child's co-actor as regards: DYNAMICS OF MOVEMENT, VOICE, BODY ODOR, TEXTURE OF SKIN, APPEARANCE AND OTHER SPECIAL CHARACTERISTICS SUCH AS SPECTACLES, A CLEFT CHIN, JEWELRY, etc.

The same person should be together with the child for a specific activity. Preferably one person should be together with the child for several activities.

It will be important for the child (irrespective of age) to be able first to establish a special relationship to a very limited number of essential persons. Later the child will be able to transfer the ability to interact, recognize and remember a greater number of people. At the same time, the child will be able to establish meaningful social relations with several people.

It will be important for the adult if he/she establishes a special relationship with one of the children of the group. This will give the adult an opportunity to become better acquainted with the child's signals and comprehension, and thus make communication easier for both of them.
2. Place

The child can learn to recognize and differentiate between places (and thus between activities and people) by:
- carrying out specific activities in specific rooms or in specific places in a room; being shown that places can be different as regards floor covering, lighting, sound, noise and resonance, smell, temperature and air movements (breeze); and
- by being made aware of objects that are special to specific places; and
- by being made aware of special signs on the way to or outside specific places.

3. Order - sequence

It will be necessary to help the child to receive an overview of the different actions and their sequence in a single activity as well of what it may expect will happen during a day, a week or a longer period of time.

This overview will create expectations in the child, sometimes something to look forward to, sometimes the opposite.

This section focuses on scheduling periods of time (such as a day or week), but the same principles can be applied to a single activity.

The child’s timetable and plan for the day (and possibly each activity) will be presented through signals, symbols or words which represent the activities which the child is to carry out.

These signals and symbols will usually be three-dimensional or two-dimensional. The timetable must be presented in the form which is most accessible for the child. A ‘day-box’ is often used in which these signals are placed or a ‘day-board’ on which they can be hung.

The ‘day-box’ is gone through at the start of the day with the help of the objects, drawings, photographs and/or word pictures, sounds, speech and signs (specially made for the child, taken from sign language for the deaf or the deaf-blind).

The purpose is to use the senses most available to the child in order to give the child information, information which is not easily available to the child may cause confusion. The quality of the information is more important than the quantity.

When the child has little knowledge and a poor overview of the world in which he lives, it will be best to prepare a timetable where the signals or symbols for the activities are as concrete as possible and are placed in separate boxes representing...
the limits of the activities in space and time. We can call this timetable a 'day-box'.

How to use a 'day-box'
- The first thing to do is go through the timetable for the day. When an activity is started, the signal or symbols for this activity is taken to the place where the activity is going on.
- When the activity is completed the object is placed in a large box, in which all the objects (signals or symbols) for the activities that have been carried out are gradually collected.
- These will be used again to sum up what has been done on that day.

In this way, the child is also made aware of gradually increasing number of empty boxes.

There should be one activity which is particular for each day of the week.

The term 'day-box' is used figuratively. Different objects and materials can be used. The important thing is that the material is available to the child in terms of the child's perception and ability to abstract.

**EXAMPLES OF 'DAY BOXES' - SCHEDULES**
4. Time

Time will be closely related to order and sequence and will often be part of it, but must also be considered separately.

Important elements of time are:
- Duration
  - Duration of different parts of an activity
  - Duration of the activity as a whole
- The time of the day
  - In relation to daily rhythm,
  - A specific day in relation to a weekly and/or monthly rhythm
  - A day in relation to the time of the year - season

The child can acquire experience and understanding for the element of time, for example, through:
- Experience
  - Having a fixed duration for certain activities
  - Arranging specific activities at specific times of the day
  - Arranging a special activity, or a few special activities on a particular day of the week
  - Arranging activities which are special for the different seasons of the year.
    Some countries will not have marked seasons; it may then be important to find another time element in nature to relate to.

5. Space

An understanding of space is connected to experiencing, understanding, differentiating and relating something that is two or three-dimensional. This will also include understanding distance, direction, size, shape, firmness and hollowness.

An understanding of space, objectively and subjectively, is a necessary factor for understanding the world in which we live.

It seems as though understanding of space can be acquired through being able to point at and give a name to objects, their size and shape. But if a child is unable to relate this knowledge to his own body, he will not develop adequate inner or subjectively applicable understanding of space. In this case, the child will not be able to transfer to an adequate degree the understanding he acquires.
Personal space - functional and potential
- Personal space is the space around the body. It is private. When ever you go into it you should be asking for permission by "knocking on the door"
- Functional personal space is as large as a person is capable of stretching.
- Potential personal space is as large as a person could reach with a maximum stretch of all his limbs. These are the limits for the respect one should show.

We all know that children with CP will need a lot of physical help. The problem is not in having to manipulate the child's body for changing body position, feeding or changing clothes. The question is how you approach the child, and how you prepare the child for what is going to happen.
- Awareness of its functional and potential personal space is of utmost importance for the child's development of:
  - Self-image
  - Independence
  - Differentiation between self and the rest of the world
  - Care for own integrity - autonomy
  - Localization of self in the world in which he lives.

Our respect for the child's personal space will be the first step in our effort to teach the child to be able to take care of himself.

General space
General space is the space we move in. Personal space will always be around us while we move through the general space.

Children with movement difficulties will have to receive help in order to experience general space and develop an understanding of it.
- If the child is to feel more secure he must constantly be made aware of the generally existing space by moving around in it and/or by being moved through it.
- To move directly and indirectly (with "detours") to a specific goal will be important as regards different degrees of purposefulness and determination, and will also have a communicative effect.
  - Moving directly from one place to another in space can give security
  - Moving indirectly from one place to another in space can stimulate exploratory activity.
- It is important to connect activities and communication by means of different directions and different levels. Directions and levels must be
experienced in relation to
- Own body
- The body's position and location in space
- Positions of objects and
- Relation between the body and relevant objects

Activities which can be logically connected to an understanding of space - of high and low, in front and behind, the one side and the other side (right and left) - will help to extend the child's concept of the world in which he lives.

Understanding of space with regards to size is part of understanding the world. Movement and objects can take up more or less space. There is, for instance, the difference between
- Natural size and size relations as they can be presented, for example, through toys and picture books
- Sizes in relation to the size of one's own body
- Size in relation to each other

COMMUNICATION AND DEVELOPMENT

1. Structured and free and spontaneous communication

- It is important to distinguish between communication within the framework of an activity and spontaneous communication - structured and free communication.
- It is important to teach the child to understand and use codes. Training in this will usually take place within the framework of an activity or in specific surroundings.
- But it is also important to take care of and/or awake the child's initiative to spontaneous communication. Therefore it is just as important to be able to show the sensitivity and flexibility necessary to be able to meet the child's initiative and attempts at spontaneous communication, and to respond if the framework is broken.

2. Mutuality and communication

Mutuality, in the meaning of the term as used here, will include attachment at the social, emotional and intellectual levels. Mutuality will be in constant development. Mutuality must constantly be maintained, renewed and extend. This may happen through interaction and communication.

When mutuality starts developing between a child and his care taker, togetherness
will be sufficient. Gradually mutuality will extend to involve objects and activities. One will use and introduce:
- Familiar and new actions and
- Familiar and new activities
- Familiar and new objects (toys, books, objects for every day living)
- Familiar and new concepts (concrete as well as abstract like feelings, state of mind)

3. Some important questions and considerations

What shall we communicate about?

What concepts should the child learn?
These two questions must be answered in collaboration with the child through:
- Observation
- Assessment
- Interpretation of the child’s interests and motivation
- The care taker’s own motivation and evaluation

The assessment must, among other thing, take into account the following:

a. about the child
- What the child can do
- What the child has to learn in order to achieve best possible control over his own situation
- What the child is capable of mastering
- What the child is interested in
- What the child has to learn to make it easier for the adult to interact with the child

b. about the adult
- What the adult has to learn
- What the adult has to see
- What the adult has to perceive
- What the adult has to express to make it easier for the child to interact with adult
- What is the adult’s and what is the child’s responsibility within their interaction
- What, though difficult, should be changed in the adult’s behaviour.