Guide to Curriculum for
Physically Handicapped Children

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Chapter One

INTRODUCTION

1.1 Definition of children with special educational needs

Children are considered to have special educational needs if they cannot benefit fully from the curriculum provided for children of their age or if they cannot be catered for adequately in an ordinary educational setting. Children with one or more of the following characteristics can be considered as children with special educational needs (SEN children):

- hearing impairment
- visual impairment
- physical handicap
- mental handicap
- maladjustment
- learning difficulties

1.2 Aims of the special education curriculum

All children, whether or not requiring special educational services, have basically the same needs and should not be distinguished from each other. Therefore, the aims of the special education curriculum should basically be the same as those of the mainstream curriculum in that great emphasis is put on the development of children's potential to the full. Accordingly, children should be exposed to similar experiences, skills, concepts, values, etc. However, the means to achieve these aims may be different and the rate at which to achieve them may also vary according to the abilities of individual children.
1.2.1 General aims

The general aims of the special education curriculum are:

(1) To help the children achieve personal development according to their individual differences.

(2) To prepare the children for living and functioning in their homes, the neighbourhood and the community.

(3) To develop in the children study skills, a positive study attitude and good study habits for self-learning or for further studies.

(4) To develop in the children work skills, a positive work attitude and good work habits for vocational training or for work.

(5) To help the children achieve as much independence as possible and become contributing members of the community.

1.2.2 Specific aims

For purposes of practical curriculum planning, these general aims may be broken down into the following specific aims:

(1) Aims related to intellectual development

    (a) To help the children make sense of their environment and construct within their minds a framework of knowledge.
(b) To develop in the children a positive attitude towards learning.
(c) To develop in the children lively, enquiring minds and to encourage in them independent thinking and rational judgements.
(d) To help the children acquire, generalize and apply knowledge and skills in daily life and to train them in habits of rational thinking with all its components, e.g. observation, systematic information gathering, analysis, synthesis, deduction and induction.

(2) Aims related to communicative development

To develop in the children the ability to express their thoughts and feelings through speech or other modes of expression.

(3) Aims related to social and moral development

(a) To help the children acquire social skills, learn to make friends and co-operate with others.
(b) To help the children acquire social and moral values and to develop in them a sense of responsibility, respect and tolerance for others, including their views, beliefs and ways of life.
(c) To help the children understand the interdependent nature of individuals and the world.
(d) To encourage the children to participate actively in different kinds of activities and to contribute to the school and to society.
(4) Aims related to personal and physical development

(a) To foster in the children self-esteem, self-confidence and a positive, realistic self-image.

(b) To provide perceptual motor training for the children.

(c) To encourage the children to pursue physical and recreational activities.

(5) Aims related to aesthetic development

To foster in the children imagination and creativity and to develop in them an appreciation for beauty.

1.3 Flexibility in curriculum planning

This Guide aims to provide heads and teachers of special schools and special classes with a general curriculum framework to accommodate the learning needs of SEN children and is written with the majority of these children in mind. As schools differ in terms of the abilities and learning needs of their children as well as resources available, they should tailor the centrally designed curriculum to meet the abilities and learning needs of their children, taking into account the given curriculum aims and broad areas of learning.

One way to adapt the centrally designed curriculum is through the development of a school-based curriculum. To facilitate this development, support from the head of school and co-operation among the staff are indispensable for sharing of knowledge and experience. Regular channels of communication such as case conferences, staff seminars, bulletins, informal discussions, etc. should be established to facilitate such sharing. It is also important that initiative and participation should be encouraged at all levels,
whether at the level of the head of school, panel co-ordinators, teachers, or other professional staff concerned, to develop curriculum materials to supplement the centrally designed curriculum.

Another way to adapt the centrally designed curriculum is through the development of Individualized Educational Programmes (IEP). Children have individual differences and therefore individual learning needs. To meet these individual learning needs, teachers are encouraged to design, where feasible, IEPs for their children, based on assessment given by all those working with these children and in collaboration with their parents. An IEP ensures that a child receives teaching materials specifically tailored to meet his individual learning needs. It is a programme whereby he can work on appropriate tasks over a period of time at his own pace under motivating conditions. In designing an IEP for a child, a number of factors should be considered: his level of development in the motor, cognitive, psychological and educational aspects, his previous learning experience, his special environmental needs, his special educational needs, etc.

1.4 Special Education Co-ordinating Committee

The Special Education Co-ordinating Committee (SECC) was established in September 1988 under the Curriculum Development Council (CDC). It comprises representatives from the Education Department, the University of Hong Kong, the Hong Kong Institute of Education, the Vocational Training Council, heads and teachers of special schools and a head of school with intensive remedial services. In effect, the SECC taps the expertise and experience of a cross-section of the special education sector in Hong Kong so that comprehensive and objective views can be ensured. Various working groups and sub-groups with co-opted members from related professions have also been formed to assist in curriculum development.
1.5 Curriculum guides for children with special educational needs

The first task of the SECC is to formulate and review educational aims for SEN children. The next task is to design a series of curriculum guides for specific categories of SEN children. Heads and teachers of special schools and special classes and all those concerned with the education of these children may refer to these guides for specific advice on the teaching of different categories of SEN children.
Chapter Two

HISTORICAL BACKGROUND

2.1 The starting of Hospital Schools, the earliest educational provision for the physically handicapped

Before the 1960's, physically handicapped children who could not fit in the architectural setting, withstand the daily routine or learn the inflexible curriculum of ordinary schools were simply kept out of schools because there were no special provisions for them in Hong Kong. However, children admitted to hospital began to have a chance of education in 1954 when the Hong Kong Red Cross sent the first teacher to Lai Chi Kok Hospital to teach school age children who were waiting for operation or were convalescing but confirmed by the medical superintendent to be fit to study. The majority of them were only temporarily "physically handicapped" recovering from illness or injuries while some were likely to be permanently physically handicapped. For the former group, teaching was mainly focused on the continuation of the curriculum and textbooks which they had been learning before admission to hospital. For the latter and those who had not been to school before, the teachers decided on the curriculum and textbooks for them which were being used in ordinary schools.

The third hospital school, the Duchess of Kent Children's Hospital Red Cross School opened in 1956. The hospital was a children's orthopaedic hospital where children stayed between a few months to a few years. Three classrooms were purposely built in the hospital. While bed-side teaching was carried out for the bed-bound children, the mobile ones could have their lessons in the classrooms at fixed school hours. In this long term hospital, the teachers could use more discretion in selecting curricula and textbooks from those being used in ordinary schools and made some adaptations to suit their pupils.
2.2 The establishment of the Special Education Section in the Education Department and the beginning of schools for the physically handicapped

In 1960, the Special Education Section was established in the Education Department. Advisory service was then available to special education sponsors. The first inspector, education of the physically handicapped, conducted the first training course for teachers of physically handicapped children which was one year part-time in 1962-63.

In 1962 the first school for physically handicapped children was established by the Hong Kong Red Cross in Kwun Tong accommodating 60 children in 3 primary classes. Majority of the pupils were post-polio whose learning capacities were not affected. (A survey done by the Education Department in that year on 100 physically handicapped children who were treated in government clinics and hospitals in Hong Kong indicated that about 82.5% of them suffered from poliomyelitis, about 8% suffered from T.B. bones or spines and about 5% suffered from cerebral palsy). Ordinary curriculum and textbooks were used. Adaptations in teaching methods and curriculum were made for over age rather than pupils’ ability or other learning disabilities. In 1964 the school was subsidized by the Education Department and this was the first time the Government undertook the responsibility of financing schools for the physically handicapped.

In the same year the Spastics Association of Hong Kong started a school for 20 young cerebral palsyed children in the premises of the Boys’ and Girls’ Clubs Association of Hong Kong in Wanchai. In the middle of the 1960’s, cerebral palsy children of primary or secondary school age were few. The school took in other types of physically handicapped children as well in the course of its development in later years.

From this time to the 1970’s the Hong Kong Red Cross and the Spastics Association of Hong Kong each opened several schools for the physically handicapped in various parts of Hong Kong. The Hong Kong Christian Service opened one in Tsuen Wan. All were government aided schools.
2.3 Increased severity and complexity of pupils' physical and learning difficulties and compatible changes of curriculum

During the 1970’s, causes of handicaps of children in schools for the physically handicapped changed gradually but significantly. Perhaps due to the improving standard of hygiene and medical service in Hong Kong, the incidence of poliomyelitis kept on decreasing, especially after the introduction of oral vaccine against the disease, to almost zero in the late 1970’s. T. B. bones were also disappearing. Instead, cerebral palsy became the most predominant occupying perhaps more than 50%. One of the main reasons could be that improved medical technology had saved the lives of many of the most seriously affected cerebral palsied babies. Muscular Dystrophy was the next as perhaps heredity factors of the disease were difficult to avoid.

Unlike children suffering from after effects of poliomyelitis or T.B. bones, cerebral palsied children might have other problems in addition to mobility difficulties. They might have deficits in vision, hearing, speech, perception, conception, expression or co-ordination of sensory functions with motor functions. Some might have emotional problems, hyperactivity or mental retardation associated with brain injuries. Teaching of these children required considerable adjustments of the ordinary curriculum and the using of special teaching methods and materials. Many of them needed slower learning paces. Those with moderate grade mental retardation might not be able to use ordinary textbooks at all. Teachers had to design special curriculum to suit their individual needs.

To support schools in meeting the increase of children with multiple handicaps in schools for the physically handicapped, the Education Department decreased the size of class from 20 to 10. However in the 1980’s and 1990’s the degree of handicap of children in these schools became even severer both physically and mentally. The reasons might have been that integration of the mildly handicapped in ordinary schools was more earnestly attempted and more babies with severe congenital defects survived. Now physically
handicapped children with moderate grade mental retardation in special schools seem to be on the increase. Very often their physical and mental handicaps are coupled with emotional instability and hyperactivity.

The range of abilities in schools for the physically handicapped is now very great. The brighter ones are learning the mainstream curriculum and sit for the Hong Kong Certificate of Education Examination or enter technical institutes. The less bright are learning a more practical curriculum preparing for vocational training. Those with moderate grade mental retardation are learning a special curriculum and preparing for entry to sheltered workshops or day activity centres. This is only the general situation. In fact there are no rigid dividing lines and the choice of curriculum for the pupils actually depends on their individual mental and physical capacities, emotional states, learning attitudes, family support etc.

2.4 The contribution of paramedical staff in the education for physically handicapped children

In the early years of educational provision for physically handicapped children the emphasis was on teaching. The need for paramedical professions such as physiotherapists (PT), occupational therapists (OT), speech therapists (ST) and school nurses was not adequately met by government aids. Schools were trying to deploy their own resources to employ professional staff in these fields to carry out the special educational services more completely. In the 1980’s the Education Department undertook the responsibility of providing a fuller team of paramedical staff.

The importance of team approach for the education of children with neurological and motor disabilities was much more strongly felt in the '80s when Ester Cotton was invited to Hong Kong to introduce Andre Peto’s Conductive Education Model. The Hungarian approach emphasized all-round training of staff responsible for the education and therapy of physically handicapped children. Hong Kong’s response to Conductive Education was immediate and innovative. Several schools for the physically handicapped and pre-school units immediately
adopted the approach and soon a new version of Conductive Education emerged in Hong Kong. Conductive Education in Hong Kong was practised without the trained all-rounded conductors but with the emphasis of a trans-disciplinary approach whereby professionals from different disciplines play the role of conductor in turn. Since then paramedical staff have been working in closer collaboration with teachers in schools for physically handicapped children and such a working pattern has become a major characteristic of the educational approach for physically handicapped children.

2.5 Examples of special curricula devised by schools

To cope with the varying needs of different groups of pupils, individual schools, apart from using the mainstream curricula, have been devising their school based special curricula such as:

Tailored Curricula of various subjects for children with slow progress who cannot digest the curricula completely

Functional or Practical Curricula for children with low academic potential preparing them for vocational training, open or sheltered employment and successful adjustment in the community

Special Curricula in lieu of Mainstream Curricula and Textbooks for children with mental retardation who cannot absorb mainstream curricula and textbooks

Computer Training for Communication and Learning for those who have difficulty in communicating with speech and/or writing

Conductive Education for the cerebral palsied.

Oral Motor Training and Pre-language Training for those who have difficulties in speech and hearing.

Perceptual Motor Training for those who have perceptual motor difficulties or inco-ordination
Individualized Educational Programmes and Social Skills and Daily Living Training for those who need them

Formal and Informal Curricula of Moral Education, Civic Education and Family Life Education including Sex Education for all pupils

These curricula are devised by multi-disciplinary teams involving, where necessary, teachers, PTs, OTs, STs or TASTs, social workers and educational psychologists.

2.6 The need for curriculum guidelines for schools for physically handicapped children

With the increase of severity and complexity of handicaps in schools for the physically handicapped, teachers are facing higher demands in curriculum planning. It is generally felt that there is a need for a central curriculum development guide to be worked out by heads and teachers of schools together with specialists in the Education Department and the institutes of education for reference by schools in their curriculum development endeavours.
Chapter Three

SPECIAL EDUCATIONAL NEEDS OF PHYSICALLY HANDICAPPED CHILDREN

3.1 Definition of physical handicap for education purposes

According to the Hong Kong Review of Rehabilitation Programme Plan (1994/95-1998/99) by the Rehabilitation Division, Health and Welfare Branch of the Hong Kong Government Secretariat, the guiding document on development of local rehabilitation provision, the following definition for physically handicapped persons has been adopted:

A physically handicapped person is defined as a person who has a disability of locomotor and neurological origin which constitutes a disadvantage or restriction in one or more aspects of daily living activities, including work.

However, from the educational point of view, not all pupils with physical disabilities require special school provisions. There may be variations in duration or severity among physical disabilities. In other words, the handicapping conditions may be temporary or permanent and mild or severe. Physically handicapped children may be multiply handicapped with mental handicap, visual or hearing impairment.

Based on the principles of provision of special education as stipulated in the White Paper on Rehabilitation 1995, for children with a disability who cannot benefit satisfactorily from education in a mainstream setting in an ordinary school, there are the provisions of special schools and special education classes in ordinary schools. Following this guiding principle, provisions listed below have been offered:

1. Special school provision for school age children with physical handicaps or their associated problems which result
in their inability to withstand ordinary school routine and environment.

2. Ordinary school placement with supports like centre-based resource teaching, peripatetic teaching and advisory service from the Resource Help Service for Physically Handicapped Pupils Integrated in Ordinary Schools of the Services Division of the Education Department.

3. Hospital School teaching service for school age children staying in hospitals and home-based teaching service for home bound children who cannot attend school because of physical reasons.

3.2 Effects of physical problems on education of the pupils

3.2.1 Mobility and physical fitness

Physical handicaps may cause various degrees of weaknesses and inco-ordination of the limbs which may affect mobility, posture and manual dexterity. Other physical problems such as heart diseases may cause poor exercise tolerance and low level of physical fitness. All these may directly result in pupils' difficulty to cope with ordinary school routine and limit their ability in exploring and understanding the environment.

3.2.2 Perception and concentration

Besides the above mentioned motor problems, neurological impairment may also cause sensory deficiency or over stimulation which may disturb perception and concentration inducing specific learning difficulties for the pupils.

3.2.3 Intelligence

One associated disability among physically handicapped children, cerebral palsied children in particular, is mental
handicap. As cited in the report of a survey conducted in the 95/96 school year by the Sub-committee on Special Education of the Board of Education, 56% of the pupil intake in schools for the physically handicapped are mentally handicapped.

3.2.4 Communication

Cerebral palsy, late stage of muscular dystrophy and facial burns may affect the pupils' ability in verbal communication. On top of this, their non-verbal communication may also be affected because these conditions may limit their facial expression and ability in signing.

3.2.5 Emotion

The disadvantageous position in which physically handicapped pupils are placed may cause them some of the emotional problems including low self-esteem, lack of self-confidence, fear of changes in environment, apathy, over dependence on others, low level of aspiration, anxiety and frustration. Some brain damaged children may also be hyperactive, aggressive or lack of emotional control.

Based on the above possible effects of physical handicaps on children, their education programmes must be so designed as to help them overcome their physical handicaps and associated difficulties. For details of other effects of physical handicaps, please refer to Appendix 1

3.3 Aims in educating physically handicapped children

It has been stated in the Information Sheet on Special Education issued by the Services Division, Education Department that the general aim of special education in Hong Kong is to provide children having special needs with education necessary to help them develop their potential to the full, achieve as much independence as they are capable of, and become well adjusted individuals in the community.
The general aim of education for physically handicapped pupils focused on the total development of pupils is similar to that for special education on the whole. Nevertheless, targeted at the specific needs of physically handicapped pupils, there are the following specific aims to consider when planning the curriculum:

1. To offer them a general education in ordinary, special day or special residential school setting according to their needs.

2. To prepare them for integration into ordinary schools or society, and to meet their psychological needs for security, love and affection, acceptance and success.

3. To teach them the basic daily living skills for independent living.

4. To help them realize their limitations and their potential and hence develop a realistic and positive outlook towards life.

5. To cultivate interests and hobbies for improving their quality of life.

6. To enhance their social development including their interpersonal relationship.

7. To provide them with medical and other auxiliary services such as physiotherapy, occupational therapy, speech therapy, career and vocational counselling.

8. To compensate for their loss of life experience due to mobility difficulties through organized excursions and outdoor activities.
Chapter Four

CURRICULUM DESIGN

4.1 Curriculum needs of physically handicapped children

Some pupils of schools for the physically handicapped, though with physical disabilities, can learn the mainstream curriculum without special problems as their learning abilities are not affected. However, over half of the pupils are affected by various degrees of mental or perceptual-motor limitations besides difficulties in movements. So when planning curriculum and implementation strategies we should take into consideration their individual differences in abilities in movement, communication, daily living skills, social competency, studies and career development after leaving school. At the same time, with the goal of integration, the curriculum for these special schools cannot depart completely from the mainstream curriculum. To meet these requirements, some principles for consideration when designing the curriculum are suggested below:

4.2 Some principles to consider when devising the curriculum framework and selecting the curriculum content

1. Be pupil oriented. The learning content should match with the characteristics of individual pupils (age, mental and physical abilities).

2. Emphasis is placed on the total and balanced development of pupils. The curriculum should be made up of academic, cultural and practical subjects. Elements related to basic skills, daily living skills and preparation for school leaving should be stressed. Moreover, learning areas should be inter-related rather than compartmentalized.

3. Every segment of school life is part of the curriculum. School routine should be carefully planned so that pupils can learn and practise any time in school.
4. The curriculum should prepare pupils to integrate in ordinary environment regarding daily living, schooling and future employment.

5. Since every special school has its unique background, mission, admission criteria, environment, equipment, etc., so curriculum development, besides following a general direction, should be school-based.

6. Since the curriculum should concern the development of all aspects of the pupils, consorted effort of teachers, therapists and other disciplines is needed in designing the curriculum content.

4.3 Structure of the curriculum

Based on the above listed principles, the general direction of the curriculum for physically handicapped children is to take care of individual needs and at the same time keep it in line with the mainstream curriculum.

Under this premise, the learning areas (Physical, Humanities and Social, Moral, Linguistics, Mathematics, Science and Technology, Aesthetics and Creative) and learning elements (Knowledge, Skills and Attitude) for mainstream schools are also suitable for physically handicapped pupils in general. However, the emphasis, content and time allocation of each area should be adjusted to cater for pupils' special needs. Generally speaking, the curriculum content should contain academic, cultural and practical subjects, but the time allocation and emphasis should be tailored and re-grouped according to individual characteristics.

Below is a diagram describing the need of subject elements in the curriculum of different groups of pupils in schools for the physically handicapped.
Diagram showing subject element combination
for pupils of different learning abilities

(Diagram adapted from "The Application of the Conductive Education System" by the Spastics Association of Hong Kong)

<table>
<thead>
<tr>
<th>Proportion of academic / cultural subject elements</th>
<th>Quadrant I</th>
<th>Quadrant II</th>
<th>Quadrant VI</th>
<th>Quadrant III</th>
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<tbody>
<tr>
<td>Proportion of practical elements</td>
<td>low</td>
<td>high</td>
<td>low</td>
<td>high</td>
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</table>

Proportion of academic / cultural subject elements

The above diagram is explained as follows:

1. The vertical axis represents the amount of academic/cultural subjects or knowledge and skills from academic/cultural subjects.
2. The horizontal axis stands for the amount of practical subjects or practical knowledge and skills from other subjects.
3. The four curriculum quadrants demarcated by the vertical and horizontal axis are:
   - The curriculum for Quadrant I is made up of higher proportion of academic subject elements but lower proportion of practical subject elements.
   - The curriculum of Quadrant II is made up of equally high proportion of academic and practical subject elements.
   - The curriculum of Quadrant III is made up of lower proportion of academic subject elements but higher proportion of practical subject elements.
   - The curriculum of Quadrant IV is made up of equally low proportion of academic and practical subject elements.
4. The proportion of need in academic and practical subject elements is decided by the characteristics of the pupils.
5. In a school for physically handicapped children, there are more pupils requiring the first and third quadrants of subject element combinations. Seldom any pupils need the subject element combinations of the second quadrant and there may not be any need for the conditions shown in the fourth quadrant.
4.4 Curriculum content

Based on the rationale mentioned in paragraph 4.3, the learning areas and general direction of mainstream curriculum are also suitable for children in schools for physically handicapped children but adjustment according to pupils’ needs are required.

Generally speaking, pupils first admitted into schools for the physically handicapped may not have developed the basic skills like ordinary pupils first joining mainstream schools. To enhance the effect of learning and personal development of pupils, schools should add in or strengthen the teaching of the following basic skills: perceptual motor, basic language, cognitive and personal and social adjustment skills.

For this reason, schools for the physically handicapped should enhance the development of the above mentioned skills in the Physical, Humanities and Social, Moral, Linguistics, Mathematics, Science and Technology, Aesthetics and Creative aspects of learning.

For pupils to acquire knowledge, skills and positive learning attitudes in the various learning areas, suitable academic, cultural and practical subjects must be taught. As for the cross subject content or issues geared to the specific needs of physically handicapped children, they are not necessarily taught as independent subjects but can be diffused into the already existing subjects as special activities or integrated activities of the school routine.

The quadrants presented in paragraph 4.3 have expressed the needs of different groups of pupils. Nevertheless, to give pupils a comprehensive education, schools should teach their pupils the above mentioned seven learning areas so that they can learn as much knowledge, skills and good attitudes as they can. So the curriculum for their pupils should contain core subjects for every pupil, elective subjects for pupils of different abilities and issue-based learning programmes specially designed to cover areas not included in the existing subjects. At the same time, teachers should pay attention to the ability of individual pupils in different subjects so that the subject content for each of them may be selected, modified, tailored or re-grouped accordingly.
Below is a suggested table of curriculum framework and content for special schools for the physically handicapped.

**Table showing the curriculum framework and content for schools for the physically handicapped**

<table>
<thead>
<tr>
<th>Learning Elements</th>
<th>Learning Areas</th>
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<tbody>
<tr>
<td>Knowledge</td>
<td>Physical</td>
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<tr>
<td>Skills</td>
<td>Humanities &amp; Social</td>
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<tr>
<td>Attitude</td>
<td>Moral</td>
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<tr>
<th>Subjects</th>
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<td>Elective Subjects</td>
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<td>Mathematics</td>
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<td>Science &amp; Technology</td>
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<td>Mathematics</td>
<td>Aesthetic &amp; Creative</td>
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<td>Art &amp; Craft (Primary)</td>
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<th>Learning Programmes</th>
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<td>Social Adjustment Training</td>
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The content of different subject groups and programmes are elaborated as follows:

4.4.1 Core subjects

In this curriculum framework, core subjects are taken by all pupils to acquire the necessary knowledge, skills and attitude for daily living, furthering their education and seeking employment. So the core subjects for every pupil are similar but the content should vary in difficulty according to the abilities and needs of the pupils.

Core subjects for schools for the physically handicapped include:

(1) Language (Chinese and English)
(2) Mathematics
(3) General Knowledge
(4) Art and Craft (Primary)
   Art and Design (Secondary)
(5) Music
(6) Physical Education

4.4.2 Elective subjects

Some elective subjects can be considered as extended curriculum for pupils who can manage the core subjects. So the election of subjects mainly takes place at the secondary stage for preparation for the Hong Kong School Certificate Examination or employment, but in the primary section, there may also be elective subjects geared to the ability, interest and aptitude of pupils. They are:

(1) Computer
(2) Putonghua
(3) Integrated Science
(4) Biology
(5) Chemistry
There are yet other elective subjects for pupils to learn at different stages of schooling:

(13) Daily Living Training
(14) Informal Prevocational Training

Both the core and elective subjects can be included in the time table.

4.4.3 Learning programmes

These programmes contain learning contents which may not be covered within the school time table. They may be programmes led by physiotherapists, occupational therapists, speech therapists and school social workers in collaboration with teachers. They may be offered in different modes but they are all geared to the psychological as well as physiological needs of the pupils. This would enhance their ability to acquire knowledge, skills and positive attitude.

Some examples of learning programmes are listed as follows:

(1) Sex Education
(2) Civic Education
(3) Moral Education
(4) Library Skill
(5) Play
(6) Self-care Training
(7) Social Skill Training
(8) Social Adjustment Training
Chapter Five

IMPLEMENTATION OF CURRICULUM

After designing the curriculum, it must be effectively delivered. The following are some points to consider when we implement the curriculum in schools for physically handicapped children.

5.1 Teaching strategies

The following are some suggestions on the ways of helping pupils learn.

5.1.1 Group teaching

Pupils are grouped according to their attainment, rate of progress, handicapping conditions and age.

The same pupil may join different groups for different subjects and learning programmes because a pupil may function at different levels or have different needs in different learning areas. When pupils are placed in groups of members with similar ability and needs, they may be better stimulated to learn with fellow pupils progressing at similar paces. Moreover, it facilitates more efficient planning and implementation of the adapted curriculum designed by teachers and paramedical staff.

5.1.2 Individualized Educational Programme (IEP)

Each pupil has his/her individual abilities and needs. It is essential for both teaching and non-teaching staff to formulate learning targets unique to each pupil which are the bases for the curriculum design. Both long term and short term learning targets should be identified covering overall development or specific needs including daily living skills training and learning of school subjects.
Individualized Educational Programmes should be planned on the bases of these targets. The programmes may be conducted in groups or taught as cross subject learning programmes by teachers and paramedical staff.

5.1.3 Learning through practice

Besides including activities such as role playing in imitated environment to assist learning in the classroom, we should let physically handicapped pupils have actual daily living experience in their communities. Therefore schools need to make arrangements for their pupils to use the community facilities so that they can adjust well to society after leaving school.

5.1.4 Time-tabling

To facilitate the implementation of group teaching, Individualized Educational Programmes and various learning programmes, special techniques are required in time-tabling.

(1) Allocation of time to different subjects in the time table

To cater for the varying learning abilities and needs of the pupils, the following modes of time allocation to subjects are suggested for reference:

(a) Number of periods for core subjects is larger than that for optional subjects. This mode is recommended for pupils aiming at receiving mainstream education or entering open employment.

(b) The number of periods for core subjects and that for optional subjects are the same.

(c) The number of periods for core subjects is smaller than that for optional subjects.

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Some learning programmes may be incorporated in lessons of different subjects.

(2) The following arrangements may be considered in timetabling and grouping:

(a) Place pupils in appropriate groups for different subjects

(b) Allocate teaching areas and staff skilfully to facilitate appropriate grouping of pupils

(c) Arrange for both teaching and non-teaching staff to take part in teaching e.g. in PE lessons or outing for experience in the community

(d) Provide individual teaching or training for pupils who need it

No matter which strategy is adopted, keeping records of learning programmes and curriculum for different groups is very important. The record should include learning targets, learning contents and their levels, pupils’ performance and evaluation. This can serve as reference when similar curriculum is implemented in future.

5.2 Assessment and review of the curriculum

5.2.1 Purpose of assessment

Through assessments, pupils can get a real picture of their progress. This can guide and stimulate their learning. Moreover, teachers can understand the progress and attainment of individual pupils and identify their strengths and weaknesses so that appropriate support can be rendered.

Generally speaking, the purposes of assessment are as follows:
(1) Identify pupils' need in learning
(2) Help teachers plan pupils' learning programmes
(3) Indicate which targets have been reached and which have not
(4) As a means for continual review

5.2.2 Function and appropriate time of implementing assessment

For various purposes, assessment should be continual. At the different stages of learning, assessment can perform the following functions:

(1) Preliminary assessment

We should assess pupils' abilities and knowledge before teaching and learning take place. The purpose is to establish their baselines for learning so that there should not be over-estimation or under-estimation of their abilities and attainment. Then learning targets appropriate to their needs can be more precisely and effectively set.

(2) Formative assessment

Formative assessment refers to the ongoing assessment of pupils' learning and progress throughout a learning programme or stage and describes how pupils are working towards their learning targets. (General Introduction to Target Oriented Curriculum, Education Department, Hong Kong, 1994)
These assessments help teachers, paramedical staff and other professionals review pupils’ learning progress continually so that they may prescribe revisions in curriculum, targets and strategies based on the assessment results.

(3) Summative assessment

Summative assessment refers to the assessment of pupils’ overall progress at finishing points of learning stages, such as the end of a school term, a school year or the learning of a unit and is designed to provide a comprehensive and summary description of performance and progress of pupils’ learning. (General Introduction to Target Oriented Curriculum, Education Department, Hong Kong, 1994)

Physical handicap may be a permanent condition. The ultimate aim of educating physically handicapped children is to help them develop their potential so that they can integrate into society. To ensure that they are progressing towards this goal, summative assessment, involving all professionals, pupils and their parents, is very important. At the end of each stage of learning, there should be summative assessments which may show whether the pupils have reached the learning targets. If they have, then they can proceed to a higher stage. So step by step they can be helped to get ready for integration which includes entering higher education, vocational training or different modes of employment. If the assessment results are not satisfactory, diagnosis of the problems and modification of intervention plans are necessary.
The relationship between assessment and review of curriculum is shown in the flow chart below:

**Flow chart on assessment, teaching and review**

1. **Preliminary assessment**
   - Formulation of work plans and work targets and standard for achieving the targets
   - Process of teaching and help

2. **Formative assessment**
   - Review of progress of work and learning
   - Summative assessment
   - General performance and effect
   - Further study / Integration into society

3. **Re-assessment**

5.2.3 **Methods of assessment**

The performance of pupils should be appraised by different methods and modes of assessment according to the kinds of modified curriculum that they have taken.

Besides the usual homework, class work, test and examinations, checklist is another type of assessment tool. The performance indicators are usually observable behaviours. Each school can compile its school-based checklists.
Of course, observing the performance of the pupils in school is the most direct and simple way of assessment. Teachers and other staff may also assess their learning abilities in all aspects through interviews of parents at school or home visits.

No matter which method is employed, all assessments should satisfy the following conditions:

(1) Based on criterion referencing principles;

(2) Cover a wide range of appropriate assessment methods and reporting strategies which are planned before programme implementation;

(3) Describe objective assessment criteria and activities for each learning target;

(4) Apply various forms of assessment activities e.g. practical tasks, observation of pupils’ daily performance, oral questions and answers, discussion, checklists, skill or performance descriptions and projects;

(5) Keep objective and detailed reports;

(6) Assessments are effective and reliable;

(7) Recognize the complexity of pupils’ performance in various aspects and that a single assessment is not reliable enough for a decisive conclusion.

5.2.4 Learning records

At present most schools are using marks or grades together with comments to record pupils’ progress. If their learning targets together with to what extent they have achieved the targets can be shown, then pupils’ abilities are even better
reflected. Pupils’ learning records can also be utilized when they are referred out from school apart from being used for review of their learning progress and performance in learning programmes and learning groups, for consideration for curriculum revision.
Chapter Six

CO-OPERATION AMONG DISCIPLINES

6.1 Importance of disciplinary co-operation in the education of physically handicapped children

Chapter Three of this Guide proposes that the aims of education for children with physical handicap are to help them develop their potentials to the full, to be independent in their daily living and to adjust well in society. They encounter different degrees of challenge in mobility, physical health, sensori-perception, concentration, intelligence, communication, emotion and social development which would affect their learning abilities. They need special education trained teachers as well as professionals from various disciplines to provide them with support in different aspects so that they can receive a comprehensive and in-depth service.

6.2 Professionals working in schools for physically handicapped children

To provide pupils with a comprehensive service, professionals working in schools for physically handicapped children include teachers, physiotherapists, occupational therapists, speech therapists, nurses, school social workers and educational psychologists. If there are residential sections attached, there will also be wardens and houseparents. This reflects the multi-facet needs of pupils. Each of the above-mentioned professionals gives unique contributions to the all rounded education of the pupils.

6.3 Co-operation among different professionals

Every school should have the above-mentioned team of professionals. The closer their co-operation, the more complete the service the school can provide. Owing to the uniqueness in mission, tradition, and environment of individual schools, there are differences in the forms and degree of co-operation. Generally speaking, there are the following three modes of co-operation among various disciplines:
6.3.1 Multi-disciplinary approach — functioning separately

Professionals from each discipline assess the performance of their pupils within their own areas of service. Based on the results of their specific assessments, they draw up their own programme plans and implement them in their specific areas of service. There is no mechanism for liaison and consultation among the disciplines.

Under this mode of operation, pupils are receiving care from the necessary disciplines and the administration is simpler. However, this independent mode of service delivery by disciplines may cause among them inconsistencies in work concepts, targets, emphasis, etc and may leave contradictions, overlaps and gaps among different parts of service unresolved. This will reduce the effectiveness of resources.

6.3.2 Inter-disciplinary approach

Under this mode of operation, professionals from each discipline assess pupils within their own professional domain but, before drawing up the programme plans, they exchange views and mediate through formal meetings or other channels with systematic and broader understanding and communication among disciplines. Then close and in-depth co-operation would be achieved.

6.3.3 Trans-disciplinary approach

Through this mode of operation, there is a constant sharing and synthesis of information through a well orchestrated mechanism among various disciplines. This enhances closer and more in-depth co-operation leading to a complete and well co-ordinated service. Following are some characteristics of this mode of operation:
(1) Pupil-oriented

All aspects of the educational service is designed according to the need of the pupils. All personnel from different disciplines are consistent in their demands on pupils.

(2) Joint effort in designing the work targets and work plans

Professionals identify pupils' needs within their own disciplines. Then they jointly draw up the learning targets and treatment plans, taken into consideration the needs of the pupils in all aspects and implement them according to the targets set.

(3) Total and constant co-operation among disciplines to provide a comprehensive service

Through close co-operation and co-ordination, concerned professionals provide a comprehensive service that has integrated the unique contribution of each discipline. It may be in the form of finely graded co-operation or designation of a discipline to co-ordinate the programme according to the nature of the tasks. Then education and therapy can be integrated in the school setting, thus attaining the target of providing pupils a holistic education.

(4) Maximum understanding and integration of knowledge and skills of all disciplines concerned

With a good understanding and blending of professional knowledge and skills of various disciplines, workers in the schools for physically handicapped children can look into the need of their pupils from different angles. Together with a pupil-centred orientation, there may be a high level of complementary co-operation among different disciplines.
6.4 Cultivation of team spirit

Owing to the unique situation of individual schools, the mode of co-operation among disciplines varies. Nevertheless, for giving pupils a comprehensive and appropriate set of service, team spirit must be cultivated to attain the level of the trans-disciplinary mode of team approach. To develop this level of co-operation, schools should consider the following steps to integrate different areas of service delivery under a pupil oriented target and then re-distribute the duties and resources accordingly.

6.4.1 Nurture a school culture that can integrate the different professions

The school can arrange formal meetings and encourage informal exchange of ideas for staff to reflect and discuss the school’s vision and mission in relation to their individual professions, share their existing goals and long term targets and establish a joint aim which will serve as future direction of work so that different professions can adjust their targets in providing a co-ordinated range of services.

In the daily operation of the school, different members of staff should have a clear idea of the limitation of the school’s resources and the role of each profession. With an understanding that difficulties are inevitable, confrontations among staff should be reduced and mutual understanding can be enhanced. Through acceptance which cultivates a win-win atmosphere, there will be more consultation, communication, consideration and supportive co-operation to improve the whole service offered by the school.
6.4.2 Enhance co-operation among professions through administrative procedures

The areas of work, roles, and duties of each profession should be clearly defined in the school organisation and made known to all. There should be direct channels of top-down, bottom-up and lateral communication for easy exchange of ideas. In decision making, arrangement should be made so that there are consultation among professions. Rational and objective analysis and co-operation should be encouraged so that different professions, taking all aspects of pupils’ needs into consideration, can function well in drawing up and implementing the action plan.

6.4.3 Well co-ordinated staff development

All professional staff in schools for the physically handicapped are well trained in their own field. Nevertheless, to implement the trans-disciplinary team approach, they need to have a good understanding of the rationale and skills of other professions. School can prepare different levels of trans-disciplinary staff development programmes to enhance cross professional understanding.

6.5 Relations between the professional team and the design and implementation of curriculum

A curriculum framework usually contains aims and targets, content and organisation, learning and teaching strategies and assessment. To give pupils a complete education, teachers and the different professions should plan together at different stages of curriculum development and implementation to give pupils a comprehensive curriculum.
When working together in developing the curriculum, different professions should consider the limitations that affect their pupils’ physiological and psychological development and reflect on their different needs and abilities, so that the learning targets set are suitable for their pupils. On selection of curriculum content to match with the targets set, professionals from all disciplines can contribute learning elements related to their fields and, through consorted effort in curriculum organisation, integrate the elements. If necessary, there can be co-operative teaching during the stage of curriculum implementation. As for assessment, each discipline should carry out preliminary diagnostic, formative and summative assessments within their own fields to identify their pupils’ abilities and limitations to ascertain their needs. Then, through exchange of ideas there will be more effective curriculum design and adaptation.

If schools are not yet ready for total participation of different disciplines in curriculum development, they should still do some tryout in specific areas of learning. With the accumulation of experience, the trans-disciplinary approach can be broadened.

6.6 **Whole school approach**

In the school environment, there are general grade staff apart from professionals. Since every segment of the pupils’ school life is an opportunity for learning and being appraised, general grade staff should have a reasonable understanding of the schools’ mission, pupils’ needs and the demand of the professionals on the pupils so that any service provided is consistent with the aims of the school and its expected standard of service.

Since pupils are staying in school only for part of the day, their parents’ attitude is an influencing factor on school effectiveness. So there should be close linkage between school and family to ensure consistency in handling pupils thus reducing confusion of standards. Besides, learning can then effectively continue from school to home.
Chapter Seven

CONDUCTIVE EDUCATION

7.1 General introduction to Conductive Education

7.1.1 Development of Conductive Education

Conductive Education is an effective system in education specially designed for people with neurological impairment resulting in weak or inco-ordinated movement. It originated from Hungary and was introduced to the United Kingdom by Ester Cotton. It was introduced to Hong Kong in the early 80s'. Consequent to the numerous visits of Ester Cotton in 1984 and 1986 to lecture on the fundamentals of Conductive Education and the repeated participation of Hong Kong candidates in the "International Courses on Conductive Education" held in Hungary since 1987, professionals from the fields of rehabilitation including special education, based on local resources, have adopted Conductive Education for practice by trans-disciplinary teams in special child care centres, special schools and sheltered workshops.

7.1.2 The fundamental principles of Conductive Education

The founder of Conductive Education, Andras Peto is a physician as well as an educator. In his opinion, weak and inco-ordinated movement and perceptual difficulties are symptoms of neurological impairment. Being negative and passive in personality is the worse effect that confusion in functioning may lead to. For this reason, Peto emphasizes that the symptoms manifested by people suffering from neurological impairment should not be viewed as isolated handicapping conditions and dealt with in isolation. He points out that the only way to help people affected by neurological impairment is a process of education which deals with the inter-related key factors and allow them to
establish a well co-ordinated system of functioning that
would induce them to develop a positive and proactive
personality. (Komas, 1995) He also stresses that the
intellectual and physical development of neurologically
impaired children are not separate. For this reason, their
daily living up to their growth in cognition and
communication skills are of equal importance and inter-
related in their total development. Conductive Education
is based on this holistic concept. It integrates the education
and treatment of neurologically impaired children into a
holistic system of education which is centred around
children's need as well as learning and implemented through
daily living.

7.1.3 Essentials in Conductive Education

(1) Conductor

The conductor should have professional knowledge in
the rehabilitation processes of people with neurological
impairment. They should also be able to integrate the
knowledge and skills in education and other aspects of
rehabilitation and provide a comprehensive service to
their clients. They resemble the conductors of
orchestras who need to co-ordinate the activities of each
small segment. In Hungary, a qualified conductor
needs to attend a four-year course which includes
teacher education, educational psychology, neurology
and knowledge in brain injury. The aim is to equip the
conductor with different expertise related to the
treatment and education of people with weak and inco-
ordinated movement. This reduces the fragmentation
of an integral service if it is to be provided by
professionals from different disciplines.

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Education. European Journal of Special Needs Education, 10, 2, 111 - 123.
(2) Grouping of pupils

In the Conductive Education system, all aspects of learning is carried out in groups. Conductive Education stresses the inter-active relationship among group members. Besides the positive impact of mutual encouragement and stimulation, group learning provides an environment for normal socialisation.

(3) Facilitation

(a) Rhythmical intention

Rhythmical Intention is a unique function that utilises the child’s own speech to regulate and assist his/her movement and actions. The idea is based on Vygotsky (1962) and later expanded by Luria (1981) on the regulatory function of speech. Speech, in this respect, serves to formulate the aim of an action, and indicates the basic scheme for the solution of the problem with which the child is faced. The self verbalization of steps of action preceding the actual movement also prepares the child psychologically for the action. The counting accompanying the actual movement acts as a kinetic melody for a smooth and co-ordinated action. Rhythmical Intention at the final stage is internalized as the child’s own tool for problem solving in dealing with his/her motor impairment.

(b) Task series

Training in Conductive Education is carried out through a purposeful series of tasks. A set of movements may be needed to complete one action or several actions or it may make up a functional activity. According to Peto, various types of learning are going on and different functions are in

operation simultaneously and this is the basis of Conductive Education. To maximize the effect, the task series should be conducted through interesting activities and learning situations. Learning situations in Conductive Education must be comparable with the daily living environment of the children. So a corridor in the school is just as good in providing learning situations as the classroom or playground.

(4) Daily routine

Conductive Education also emphasizes the keeping of a regular daily routine so there is consistency in what the children are learning each day. It is hoped that functional skills can be put into practice in daily living. So there must be sufficient time to learn and practise walking, toileting, feeding, self-care, communication and other muscular movements.

7.1.4 Daily schedule

The purpose of drawing up a daily schedule is to ensure that the learning activities match with the daily living routine, so what is learned can be put into actual practice. The daily schedule is more complicated to design than the school time table because it is a whole day programme and good linkage between specific activities has to be ensured. Through this schedule, both lesson time and outside lesson time or even every segment of daily life can be a learning situation. When designing the daily schedule, there must be flexibility and detailed planning in developing learning situations, time allocation and effective staff deployment. The goal is to offer pupils full day learning and practising in a positive and secure environment.

The function of Conductive Education is to allow neurologically impaired children to learn and practise what they have learned throughout the day in their natural environment through a smooth and uninterrupted schedule.
7.2 Conductive Education implemented in schools for the physically handicapped in Hong Kong

7.2.1 The importance of Conductive Education to physically handicapped children

Over half of the pupils in schools for the physically handicapped are the cerebral palsied (According to the enrollment record of all schools for the physically handicapped in February 1998, the percentage is 56.6) They have weak and inco-ordinated muscular movement. Inco-ordination in movement will inhibit their ability to explore and control their environment. This in turn will affect their development in intelligence and character. So during character and cognitive development, movement and perception are indispensable elements.

Conductive Education emphasises that body movement and thinking are inseparable. Also education and therapy should be integrated. So the adoption of Conductive Education in schools for the physically handicapped which admits cerebral palsied pupils is meant to meet the specific needs of their pupils.

7.2.2 Conductive Education implemented under special education services in Hong Kong

Conductive Education implemented in the context of special education services in Hong Kong shows the following characteristics:

(1) The role of conductor is replaced by the trans-disciplinary team

In the place of origin of Conductive Education, the Peto Institute in Hungary, all personnel from administrators to front line workers are conductors.
In Hong Kong, there are no similar conductors. Conductive Education is implemented by a trans-disciplinary team which is made up of teachers, physiotherapists, occupational therapists, speech therapists, school social workers, nurses and house-parents. Professionals from different disciplines, through co-operation and learning from each other, try to absorb as much as possible the professional skills and knowledge from other disciplines. So they may have adequate knowledge in all aspects of education and treatment. Together they can perform the function of conductors.

For this reason, staff development is crucial in carrying out Conductive Education. Since this system integrates education and treatment, professionals from different disciplines require comprehension of the knowledge and skills of related disciplines. The wider the overlap of cross disciplinary expertise the better it is for implementing the system. Thus cross disciplinary staff development is essential to the development of Conductive Education.

(2) Help pupils to practise knowledge and skills learnt through careful organisation of curriculum

An integrated curriculum enables neurologically impaired children to learn, and to put into practice the integrated knowledge and skills that they have learnt. An integrated curriculum can be issue based, learning domain based or problem based. The aim is to provide pupils with opportunities to establish integral concepts instead of teaching them fragmented knowledge. Besides, in a carefully arranged daily living routine, we should provide children with appropriate amount of help, so that they may manage completing each daily living task on their own. The aim is to turn the affected parts of the body from dysfunctioning to functioning, and what is learned is put to use.
An organized daily schedule facilitates continuity in learning so that the experiences attained can be linked up. If there is residential service provided in the school, the daily schedule can be extended to the residential section. For day pupils, through parents’ co-operation, learning can also be continued from school to home.

(3) Create a favourable learning environment

Through an appropriately equipped environment, we should provide pupils with as much activities as possible so as to strengthen their ability of controlling their environment.

Learning and teaching activities should be geared to the handicapping conditions of the pupils. They should have sufficient time and space to organize their movements or activities. This is the basic requirement in curriculum implementation because it is essential in effective learning.

The various arrangements made through Conductive Education enhance neurologically impaired pupils’ ability of integrating what have been learned and also help overcome their obstacles in character and psychological development. This will in turn enhance their ability of learning and bring their baseline closer to that required by the mainstream curriculum. This also enables them to learn at their own pace within the core learning areas as mentioned in Chapter 4. To speed up their integration, the trans-disciplinary team implementing Conductive Education should continue to develop assessments which integrate elements in education and treatment. At the same time, we should further plan a curriculum which is balanced, coherent and promote pupils’ ability to integrate what they have learned.
One of the concerns of Conductive Education is that to help children overcome their learning difficulties, we have to study education and the art of creating ideal learning environments. (Compilation of Chinese Material on Conductive Education in Hong Kong 95). The practice of Conductive Education in Hong Kong warrants further investigation and improvement in curriculum, teaching materials, strategies and the organisation of the trans-disciplinary team.
Chapter Eight

GUIDE TO CURRICULUM FOR HOSPITAL SCHOOLS

As stated in Chapter Two of this Guide, hospital schools have started operation under the sponsorship of the Hong Kong Red Cross since 1954. These schools provide education to hospitalized children who are excluded temporarily from normal daily classes. Children in hospitals have a need for continuation of education and activities. The offer of a school programme in hospitals ensures equal educational opportunities for these children. It provides the necessary tuition for the children in the hospital who are well enough to study, so that upon their discharge, they will encounter less difficulty in resuming normal schooling. It also serves as a comforting and familiar experience to a hospitalized child in an unfamiliar environment. The notion a hospital school programme communicates to the child that he is expected to get well is viewed as significant.

8.1 Pupil admissions

The pupils attend hospital schools with permission or recommendation by the medical officers or nursing officers in charge of the hospital wards. Those who are less mobile receive individual bedside tuition. Pupils have their lessons in classrooms or in groups in the wards. Pupils of the Home-based Teaching Programme are referred by the Services Division of the Education Department.

Pupils in hospitals feature their different health conditions when having lessons in wards or in classrooms. These include a variety of chronic or acute illnesses. Some of the pupils may have disorders which necessitate frequent suspensions and re-admissions. Educational emphases are likely to be different for these children. Besides children with various illnesses, there are also children with various handicaps.
8.2 School programme

The amount of time allotted for instruction and the curriculum content vary according to the number of pupils enrolled, their length of stay, their physical, intellectual and emotional status, their academic standard and the availability of educational facilities in the hospitals. Due to the children's ever changing physical status, the school programme often needs to be adjusted to their changing pace of learning. Flexibility and variations in the use of the curriculum content is a necessity to maximize teaching effectiveness.

One uniqueness in the hospital schools is the opportunity for individualization of instruction. The physically handicapped as well as young pupils, often have serious gaps in their experiences and knowledge. The hospital school programme offers an opportunity to fill some of these gaps in a non-competitive atmosphere. In this respect, the school programme also serves a remedial purpose. However, to ensure programme continuity, the hospital school programmes are usually carried out in such a manner that there is as little change as possible from the general pattern of an ordinary school.

8.3 Services provided

At present, the hospital schools provide educational services to patient-pupils of the general wards and psychiatric units in hospitals. A home-based teaching programme is also offered to pupils who are homebound for health reasons. The existing services in hospital schools are presented as follows:

8.3.1 General section

Individual bedside teaching, or group teaching in wards or classrooms for preparatory, primary and secondary pupils who are hospitalized due to injuries or various illnesses such as fever, asthma, pneumonia, diabetes, heart disease, cancer, scoliosis, bone fracture, burns etc.
8.3.2 Psychiatric Section

(1) Individual, paired or group teaching and parent group meetings for ward patient-pupils or day patient-pupils, of preparatory, primary and secondary school levels, with some of the following disorders:

- disruptive behavioural disorders such as conduct disorder, hyperkinetic disorder.

- emotional disorders such as depression, obsessive compulsive disorder, anxiety, phobia, school refusal.

- developmental problems such as mental retardation with behavioural problems, autism, learning difficulties.

- adult type psychiatric disorders such as psychosis.

- others including anorexia nervosa and other eating disorders, enuresis and elimination disorders, substance or drug abuse, tics and tourette disorders, suicidal attempts, child abuse.

(2) Individual teaching and group teaching for day patient-pupils of preparatory level aged from 4 to 6 years with developmental problems such as

infantile autism

language delay

global developmental delay.

(3) In all psychiatric units of hospital schools, teachers work with other disciplines of the hospital including the psychiatrists, clinical psychologists, nurses, medical
social workers, occupational therapists, speech therapists and other specialists (such as dietitians and physiotherapists) in the programme planning for each individual child. Advice and service are also provided by educational psychologists from the Education Department as may be required.

8.3.3 Home-based Teaching Programme

Individual home teaching is offered to compulsory school age children who are home bound for health reasons, such as leukaemia, brain tumor, osteosarcoma, etc.

8.4 Curriculum

8.4.1 Curriculum applicable to the General Section, the Psychiatric Section and the Home-based Teaching Programme

The curriculum of hospital schools mainly follows that of ordinary schools but is modified according to the need, ability and duration of stay of the pupils. The learning areas of the various levels are detailed as follows:

(1) Preparatory: Language, Number Work, General Knowledge, Art and Craft, Music, Play

(2) Primary: Chinese Language, English Language, Mathematics, General Studies, Art and Craft, Music, Putonghua

8.4.2 Curriculum applicable to the Psychiatric Section only

(1) In addition to the curriculum above, there are also special programmes for pupils who cannot cope with the mainstream curriculum. The learning areas for preparatory, primary and secondary pupils with autism or mental retardation are focused on language (with emphasis on receptive and expressive skills, reading and writing skills), Mathematics (with emphasis on pre-mathematics and mathematical concepts) and integrated studies. The curriculum content is based on the following curriculum guides:

Curriculum Guideline for Mildly Mentally Handicapped Children (Education Department)

Curriculum Guideline for Moderately Mentally Handicapped Children (Education Department)

A Guide on the Operation of Special Provision for Autistic Children in Special Schools (Education Department)

Curriculum for Very Young Children (Hong Kong Christian Service)

Developmental Learning Package (Heep Hong Club)

For children with attention deficit and hyperkinetic disorder, the mainstream curriculum is followed, with modifications based on the individual needs of the pupils.

For children of preparatory level in the psychiatric section, emphasis is placed on the development of classroom behaviour (e.g. sitting properly, attention and response), cognitive and pre-mathematics skills (e.g. sight, hearing and tactile abilities, fine/gross motors, spatial concepts), language and social skills.
(2) Supplementary curriculum for the psychiatric section includes library activities, cookery, music activities, ethics/moral education, sex education and social skills training. Apart from formal teaching, there are activities such as contests, games days, speech days, parties, outings and visits.
Chapter Nine

CONCLUSION

9.1 CDC Special Education Co-ordinating Committee, in 1995, organized a Working Group to develop the Guide to Curriculum for Physically Handicapped Children with the purpose of proposing a curriculum framework and implementation strategies that suit the need of the schools. It is hoped that teachers can then be helped to gain a better understanding of the more and more complicated handicapping conditions of their pupils so that compatible curriculum can be designed to provide them with whole person education and prepare them to integrate into the more and more demanding society.

9.2 This Guide begins with the background of the development of education for the physically handicapped in Hong Kong with special reference to curriculum development. It is followed by the definition of physically handicapped children and concerns in their education and special needs arisen from their handicaps. Then it proposes the two fundamental principles in designing curriculum for the physically handicapped: taking care of their special needs but at the same helping them integrate in mainstream education and normal living environment. Based on these principles, this Guide proposes a curriculum framework and implementation strategies for reference. Two important features of the schools for the physically handicapped, trans-disciplinary team approach and Conductive Education, are also covered in two chapters. The last chapter deals with the curriculum for Hospital Schools.

9.3 This Guide is to provide references for professionals such as teachers, social workers, occupational therapists, physiotherapist, nurses, educational psychologists when they design and implement the curriculum. The curriculum content discussed has a wide coverage so that the whole-person education of the children can be dealt with. However, this Guide gives only general descriptions of suggested curriculum organisation and strategies of implementation. Further details may be elaborated through teachers' handbooks, catalogues of reference material, seminars and workshops to be arranged in the future.
9.4 When designing the curriculum, individual schools need to consider their unique conditions, children's age and characteristics, and current social changes. It is the intention of this Guide to propose a clear structure to assist teachers and other professionals in their development of school-based curriculum.

9.5 The ultimate aim of the education for physically handicapped children is to help them integrate in mainstream education and adjust well in society. Thus, professionals concerned must be very familiar with the curriculum based on which the curriculum for physically handicapped children may be appropriately devised.

9.6 Curriculum development is a continuous process which has to match the changing needs of society. Hence, this Guide needs to be reviewed and revised regularly.

9.7 When formulating this Guide, the Working Group upholds the principle that special education is an integral part of education. At the same time, the Working Group has also taken into consideration the Government policy that rehabilitation services include special education as indicated in the Hong Kong Review of Rehabilitation Programme Plan (1994/95-1998/99) by the Rehabilitation Division, Health and Welfare Branch, Government Secretariat, June 1996.
Appendix 1

Some Points to be Considered
When Teaching Physically Handicapped Children

1. Pupils' physical conditions and sitting posture

Pupils may have to use a tremendous amount of energy and concentrate hard to maintain correct sitting posture or posture in general. This would impede their concentration in classroom learning. The situation is particularly true with pupils suffering from athetosis. They have to summon a large amount of energy before they can make a small movement such as pointing with their fingers.

2. Effects of pupils' sitting posture and head control on their eye contact with others and their perception

For example, it may be difficult for some pupils to lift their heads to look at pictures. Teachers should take into consideration physical conditions of the pupils and place pictures in appropriate positions for them to have a better view. Pupils may be trained to lift their heads to look at pictures placed at a higher position.

3. Pupils' ability to move their hands and legs

Teachers should encourage pupils to finish their tasks by using both hands to reinforce their concept of mid-line. Usually physically handicapped children are weak in their concept of mid-line and unconsciously neglect their weaker limbs.

4. Effects of physical conditions on pupils' abilities to learn and receive information

Limitations in mobility reduce pupils' learning of verbs and spatial concepts, etc. This will lower their understanding of such meanings. When teaching these concepts, teachers should use appropriate demonstrations and encourage pupils to learn through personal experience.
5. Ability to swallow

Some physically handicapped pupils have difficulties in swallowing. If inappropriate food or drinks are given, they may develop food refusal after being choked. The more serious cases may be fatal.

6. Ability to hear

Some physically handicapped pupils may not be able to hear clearly sounds emitted at certain ranges of frequencies. This affects their ability to receive audio information. So teachers should speak in front of their pupils in the light. Teachers should not stand behind them or speak too loudly near their ears.

7. Verbal ability

There may be discrepancy in different pupils’ abilities in understanding speech and expressing verbally. Teachers should give instructions at different degrees of difficulties according to pupils’ hearing capacity. Some may only understand single word instructions and express themselves in single words. Some may be able to comprehend only one step instructions. If inappropriate instructions are given, pupils’ abilities may be wrongly assessed.

8. Control of oral muscles and drooling

Teachers should encourage pupils to swallow their saliva or wipe it clear. Unhygienic drooling will affect social relationship.

9. Emotional difficulties

During the process of learning or daily living, physically handicapped pupils require a great deal of energy to maintain or improve their posture, their head position, eye contact with others, control of their hands and oral muscles. Very often, they are frustrated by repeated failure to do so. This sends them negative messages on their self-image and abilities. They may turn withdrawn, unco-operative and easily irritable. They would avoid challenges by running away from learning, socialization and taking care of themselves. People that they encounter would respond negatively to their withdrawal, emotional instability, and low motivation in learning. Then pupils think that their inadequacies
are confirmed. A vicious cycle of lowering their self-esteem would develop.

Therefore when teaching physically handicapped pupils, teachers should recognize with empathy their difficulties and frustrations in learning, socialization, and self-care. Only when their inadequacies are accepted and addressed, will they start to have the confidence to learn new things and receive counseling. Also, appropriate rewards should be planned in their learning programmes so that they may understand their own abilities and gain self-confidence and the sense of success which are essential elements to induce learning motives.

Pupils with brain injuries may have difficulties in concentration. They are easily distracted by slight external stimulus, hyperactive and emotional. They cannot hold on to finish simple tasks. Their tolerance threshold is low. To help them learn, teachers should recognize their problems. Their curriculum content and strategies should be geared to pupils’ learning and behaviour problems, e.g. learning tasks should be appropriately analysed and programmed. Pupils should know clearly the teachers’ demand on them and the rules of reward and punishment and the learning environment should be closely monitored so that they are fully aware of the consequences of their performance in learning and conduct.
Guide to curriculum for physically handicapped children