DOCUMENT RESUME

ED 327 014 EC 232 661

TITLE Educating the Disabled: Report of a Regional Planning Seminar and Workshop on Special Education (Coimbatore, India, August 12-24, 1985).

INSTITUTION United Nations Educational, Scientific, and Cultural Organization, Bangkok (Thailand). Regional Office for Education in Asia and the Pacific.

PUB DATE 87

NOTE 85p.

PUB TYPE Collected Works - Conference Proceedings (021) -- Guides - Non-Classroom Use (055)

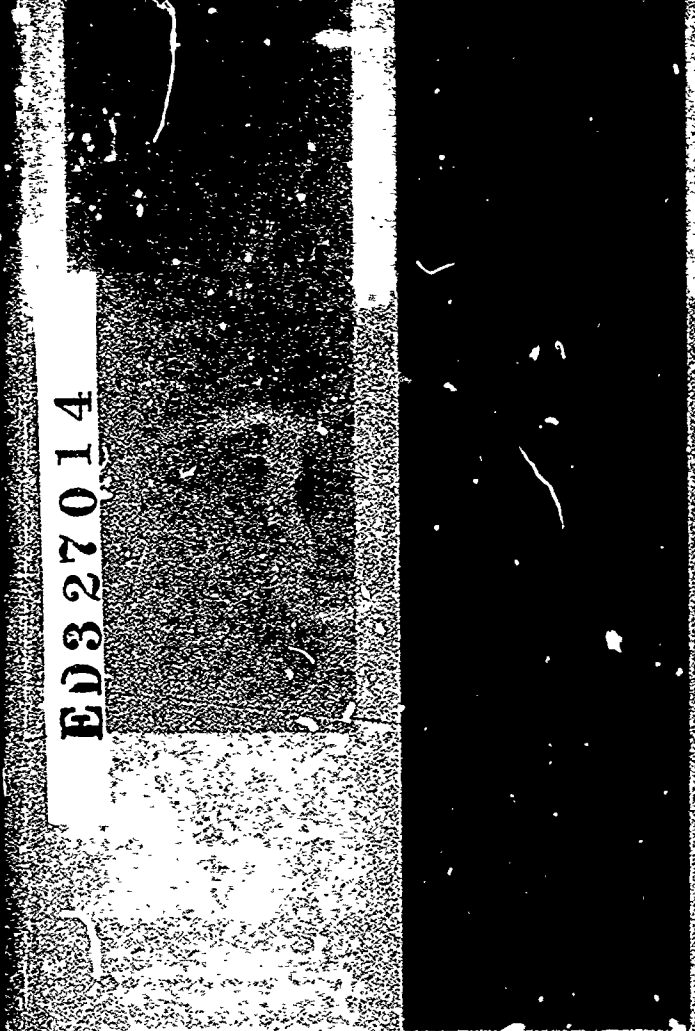
EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.

DESCRIPTORS Cooperative Programs; *Disabilities; *Educational Policy; Elementary Secondary Education; Foreign Countries; International Cooperation; International Educational Exchange; *Program Development; Rehabilitation; *Special Education; *Teacher Education; *Visual Impairments

IDENTIFIERS Asia; *UNESCO

ABSTRACT

The document reports on a regional (Asia and the Pacific) seminar and workshop held in August 1985, addressing the education of disabled persons. Nations represented included India, Indonesia, the Philippines, Thailand, and Vietnam. The seminar considered planning measures in support of implementing education services to the disabled and exchanging experiences, problems, and solutions concerning program implementation. The workshop attempted to develop criteria for the structure and material selection of a handbook on training teachers for the mainstreaming of visually disabled students and to develop prototype components of the handbook. After an introductory chapter, chapters address: the planning of educational services; planning for implementation--educational services for the visually disabled: development of an exemplar guide book structure for training teachers of the visually disabled; and seminar and workshop recommendations and suggestions. Recommendations include 14 addressed to member countries (e.g., formulation of definite policies to effect mass educational services to the disabled) and 8 recommendations addressed to international agencies. Appendixes include the agenda, a list of participants, the inaugural address of the seminar, and the inaugural address of the workshop. (DB)



Unesco Regional Planning Seminar and Workshop on Special Education, Coimbatore, India, 12-24 August 1985.

Educating the disabled. Bangkok, 1987.
79 p.

1. SPECIAL EDUCATION – ASIA/PACIFIC. 2. EDUCATION FOR THE BLIND – ASIA/PACIFIC. 3. EDUCATION FOR THE BLIND – TEACHER TRAINING – ASIA/PACIFIC. I. Unesco. Regional Office for Education in Asia and the Pacific. II. Title.

371.911
362.41

Report of a
Regional Planning
Seminar and
Workshop on
Special Education

Coimbatore, India
12 - 24 August 1985

educating the disabled

UNESCO
REGIONAL OFFICE
FOR EDUCATION
'N ASIA AND
THE PACIFIC

Bangkok
1987

Published by the
Unesco Regional Office for Education in Asia and the Pacific
P.O. Box 1425, General Post Office
Bangkok 10500, Thailand

Printed in Thailand

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Chapter One

INTRODUCTION

Implementing UNESCO's Major Programme III: Education for All, Sub-Programme II. 6.1: Action on behalf of Disabled Persons, under its 1984-1985 Programme, Unesco, in co-operation with the Sri Ramakrishna Mission Vidyalaya College of Education, Coimbatore, India, convened a Regional Seminar and Workshop on Special Education, from 12-24 August 1985, at Coimbatore, India.

The Workshop followed immediately after the Seminar, attended by the same participants and observers.

Scope and Objectives

The *Seminar* attempted to achieve the following objectives:

- To consider planning measures to be taken in support of mass implementation of education services to the disabled.
- To exchange experiences and identify problems and solutions to the problems in regard to the implementation of these planning measures.

The *Workshop* attempted to achieve the following Objectives:

As a training exercise,

- To develop criteria for the structure and for selecting materials, for a Handbook for Training Teachers for the mainstreaming of the visually disabled in ordinary schools.
- To develop prototype components of the Handbook as exemplars.

The Agendas of the Seminar and Workshop operationalised these objectives (Vide Annex. I – Agenda).

Participants

India, Indonesia, The Phillipines, Thailand, Vietnam were represented at the Seminar and Workshop. These countries had already hosted UNESCO assisted National Workshops on Special Education (Mobile Training Team) and some were due to do so shortly. Sri Lanka and the People's Republic of China were unable to attend due to unavoidable reasons (Vide Annex. 2 – List of Participants). China, like the countries attending the Seminar and Workshop, presented their Country Case Report, even though they could not be present.

Inauguration

The Seminar was inaugurated on 12th August, 1985 by Dr. Tiruppur Subramania Chettiar Avinashilingam. In his inaugural address (Vide Appendix I),

Educating the disabled

Dr. Avinashilingam stated that the world (both the developing and developed countries) is increasingly aware of their duty towards the disabled after the United Nations Declaration of IYDP in 1981 which focussed attention on the duties of societies towards their disabled brothers and sisters. He pointed out that every country and every community is now realising that the blind, the hearing handicapped or the crippled can stand on their own if society cares to give them a chance. He also stated that a massive publicity drive needs to be mounted to focus on the tremendous potential that lies latent in the vast human resources labled as disabled. He congratulated UNESCO for taking up the task of mass implementation of educational services for the disabled.

The Workshop was also inaugurated by Dr. Avinashilingam. He made the following points in his inaugural address (Vide Appendix II).

By highlighting the importance of Integrated Education for visually disabled children, Dr. Avinashilingam pointed out the need for many approaches and strategies in providing educational services in normal schools. He also stated that Governments and other organisations should give due recognition to this work for the disabled so that talented people could be attracted towards the service for disabled children.

The inauguration and the Seminar and Workshop received wide coverage in the local and national media.

Office-bearers

The Seminar elected unanimously the following participants:

Chair Person : Dr. (Mrs.) Sudesh Mukhopadhyay
(India)

Rapporteur : Mr. Paitoon Suriyachai
(Thailand)

Two Unesco Consultants Dr. Nand Kishore Jangira and Prof. Malla Nanja Gowder Mani assisted in the deliberations of the Seminar and Workshop and provided substantive working documents.

Ratnaike, J, Educational Adviser, Unesco Regional Office, Bangkok acted as the Secretary to the Seminar and Workshop.

Seminar and Workshop Operation

The proceedings of the Seminar and Workshop were a hybrid of technical presentations (including country case studies related to planning for mass implementation of services to the disabled) and detailed substantive discussions in plenary during the Seminar phase and plenary, group and individual work on the development of criteria, topics and exemplar units, during the Workshop phase. The various technical documents acted as working papers for the work of both the Seminar and the Workshop.

Participants viewed and discussed a VTR presentation on Integrated Education of the blind in Coimbatore, and a rich exhibition of low cost aids for teaching the blind with the learner actively participating in learning activities. Field visits were made to the Resource and Development Centre for Special Education of the Sri Ramakrishna Mission Vidyalaya and to schools implementing the Integrated programme.

During its final Session on 24th August, 1985, the participants adopted the draft final report. The participants expressed their thanks to the Government of India and the UNESCO for making the Seminar and Workshop a reality. They extended their sincere gratitude to Dr. Avinashilingam, Founder-Director of Sri Ramakrishna Mission Vidyalaya and his staff for warm hospitality, continuous generosity and highly efficient administrative and technical support to the Seminar and Workshop. The participants also expressed their deep appreciation of the tireless efforts and high technical competence of the Consultants.

Through the organisers of the Seminar and Workshop, the participants wished their thanks be conveyed to the many agencies that generously hosted functions on their behalf.

Documentation

The main working documents were the following:

- Agenda
- Schedule of Work
- Country Case Studies (India, Indonesia, Thailand, Vietnam, People's Republic of China)

Seminar/Workshop Working Papers

- Educational Services for the Disabled in Ordinary Schools: The Teacher's role and Competencies
  - Dr. (Mrs.) Sudesh Mukhopadhyay
    NCERT
- Education of Hearing Handicapped in India
  - Dr. (Mrs.) Prem Lata Sharma
    NCERT
- Education of the Visually Handicapped in India
  - Dr. I.D. Gupta
    Regional College of Education
    Bhopal
- Education of Orthopaedically Handicapped Children in India
  - Dr. M.S. Samar
    Regional College of Education
    Ajmer

and

- K.B. Rath
  Regional College of Education
  Bhubaneshwar

- Education of the Mentally Retarded in India

  - Dr. (Mrs.) Janak Varma
    NCERT

- Educational Services for Disabled Children: Policy, Plans, Perspectives (Discussion Document)

  - Dr. N.K. Jangira
    NCERT

- Education of visually impaired in normal Schools

  Discussion document

  - M.N.G. Mani,
    Project Director,
    Sri Ramakrishna Mission Vidyalaya
    College of Education.

- The Education of the Disabled

  New Design Frameworks

  - Ratnaike, J.,
    Educational Adviser,
    UNESCO, (ROEAP)

Chapter Two

PLANNING OF EDUCATIONAL SERVICES FOR THE DISABLED

New Policy Frameworks

The Case Studies from every country attending the Seminar, reflected an urger. concern for extending educational services to the disabled. Undoubtedly, national commitments to the universalization of the first level of education, have provided the most recent impetus to this concern.

One immediate constraint to systematic planning for educational services to the disabled, reported by all countries, was the unavailability of accurate data. Lack of infrastructures for the collection of data specific to the disabled; confusions in definitions regarding identifying the disabled; social and cultural inhibitions that obstruct data gathering, have contributed to the pancity of data in an countries.

Generally, an approximate figure of 10 per cent of children of school going age are considered disabled. However, micro samplings and other small scale data collections, with criteria related to education as the focus, have produced figures, higher by at least 5 – 8 per cent. It was also recognised that there are likely to be geographical areas in a given country where the percentages would be even higher. These would be areas where economic conditions place a significant percentage of the population at or below the poverty line, and nutrition, health and sanitation problems are serious.

A further issue referred to by the Seminar was that there were many children already in school who are disabled, whether they are recognised as such or not. These children have found their way into schools, carried by the surge for the universalization of the first level of education. The perspective, in this case, shifts to the mildly disabled, who often manifest their disabilities as learning difficulties. Some countries represented at the Seminar have already taken measures in this regard, and have initiated actions to support the achievement of "slow learners", sometimes even categorizing these are being different from the disabled.

Whether separately classified or not, the new realizations have placed a large number of disabled (the mildly affected ones) in the wider and more comprehensive canvas of helping superior achievement by learners in the education system. Thus the issues of the disabled are beginning to be considered, not in isolation and outside the national education system, but as components of wider design and planning frameworks, related to the achievement of individual learners, in the context of three principles of universalizing the first level of educaton, namely, access, survival and success.

One country reported further investigations being undertaken to reinforce this perspective, in its surveys of the dropouts in terms of possible disabilities as

a major cause of dropping out of the school system. The Seminar was unanimous in emphasising the goal of universalisation of the first level of education within the shortest possible time, to realise the egalitarian provision of equal educational opportunity. The success of the universalization achieved in some countries, and in sight in others, depends on meeting the needs of the disabled children by way of either retaining and enhancing the achievement of those who are already in the system, or bringing in those who are outside it.

Associated with the concern for the universalization of education, the Seminar also referred to the major change in philosophical, social justice and developmental thinking in the countries represented. This change has made human rights, social justice and a fully integrated society, fundamental and foundational principles for action in regard to services for the disabled. This change has implied significant modifications to strategies related to the planning and delivery of services to the disabled. The kinds of changes may be summarized as follows:

- from protection to emancipation;
- from wardship to independence;
- from separation to integration;
- from exclusion to incorporation;
- from restriction to expansion.

Even in the approach to the general public in regard to the disabled, there have been fundamental shifts of emphasis. These include:

- from appellation to information;
- from reproach to enlightenment;
- from intuition to reflection;
- from emotionality to knowledge.

Ultimately, the service to the disabled is being viewed in the same perspective framework as services to all the various citizens in a country, in terms of their intrinsic work as human beings, and their fundamental rights. Thus, it is argued, the programmes for the disabled, in principle, must arise out of a consideration of the human and citizen rights, just as programmes for ethnic monorities, for example, arise from such considerations. The same fundamental principles that govern respecting different life styles of these ethnic minorities, must also apply to those national citizens who have been categorised as disabled. This is the real meaning of national integration. Without it, there cannot be a sense of nationhood shared by *all* citizens in a country.

The implications of this new thinking in the countries represented at the Seminar, are that, as with ethnic minorities, a disabled person in *not* a different kind of person, but an *ordinary citizen* with *special needs.* Like all other members of society, the disabled also must have the same rights to education, to work, and to full participation in society. Thus, the programmes for the disabled emanating from these changes of thinking, fit coherently into the new national programmes for social justice for all citizens, which have received favoured treatment in national socio-economic plans of countries.

Simultaneously, to be consistent with the general principle, the Seminar indicated that programmes for social justice have to incorporate programmes for the disabled.

This major change of perspective has been found, not only to be difficult to conceive and internalize, but also, perhaps, more difficult to implement in its totality. It probably explains why, even though several countries have accepted this design principle at a planning level, only very few have attempted to practise on a mass scale, the implications of the principle. Some of the difficulties in both internalizing and implementing certainly come from the weight of historical practice derived from medical diagnoses of categorizing the disabled as people with intrinsic *flaws*. It is this practice that formed the foundational design for the earlier special schools.

The Seminar expressed that in a real sense, this view parallels the manner in which ethnic minorities were stigmatized in some societies, as having intrinsic flaws. The Seminar had no doubt that a great deal of re-education and re-sensitization is still to be done in societies, before citizen rights of the disabled is accepted in the countries, in the total context of human rights of all citizens.

While planning circles in the countries have acted "in house" in regard to the implications of this principle, sufficient support to the general public, to the parents and to the immediate community of the disabled child, to comprehend and internalize these new concepts regarding the citizen rights of the disabled, is unfortunately severely lacking in most countries.

While expressing these strong convictions, the Seminar, however, frequently referred to the frustrating issue of the lack of systematic, well resolved data and reemphasised the urgent need for corrective action in this regard. Among the various corrective actions considered by the Seminar were: Macro surveys which have to be improved by way of educationally specific definitions of the disabled, and building reliabilities into the identification; micro-surveys with comprehensive coverage of the target population. Fortunately, during the last decade or two, every country has developed a variety of infrastructures that are already being used for educational data gathering. These infrastructures may well be mobilised for the purpose of collection of data regarding the disabled, recognising that the data collections have to be specifically oriented for this purpose.

Integrating in Ordinary Schools

With this overall shift of emphasis to a consideration of the human rights of the disabled, and the universalization of the first level of education, it is not surprising that "Integration" as a modality, (rather than only special schools), has recently gathered considerable momentum in the countries represented at the Seminar. Integrating disabled children also flows directly from the philosophy of equal rights for all citizens, with the contention that while disabled children are ordinary citizens with special needs, the delivery of the services to meet this needs, must take place in the most effective and least restrictive circumstances. Scholastic apartheid is no longer assumed automatically to be valid, in the new policy frameworks.

The Seminar acknowledged that such a contention does *not* rule out special schools, or centres, or special units within ordinary schools. These situations become *not the automatic norm,* but *special cases* where the delivery of services to children with complex special education needs may be concentrated for long or short periods during school life.

This would accommodate a hierarchy of services, many of which are already available in the countries (although the outreach is miniscule, compared to the needs), such as the following:

- Hospitals and other treatment centres;
- Schools in hospitals and treatment centres;
- Residential special schools with services;
- Special day schools with services;
- Full-time/part-time special classes with services;
- Rugular class-room plus clinic room services;
- Regular classroom with supplementary teaching and treatment;
- Regular classroom with consultation and referral services;
- Regular classroom with problems usually handled in the classroom by the teacher alone.

Thereby, earlier established centres (such as the special schools), are not "thrown out" of the new planning, but, on the contrary, are integrally incorporated for their critical contributions to a larger vision of services.

The contention indicated earlier, the Seminar concluded, would imply that moving up the hierarchy would only take place as far as is absolutely necessary under the criteria of most effective *and* least restrictive. Similarly, the learner will return again to lower levels in the hierarchy as soon as feasible, to maintain the criteria of most effective and least restrictive.

It follows also that the first option to be considered in selecting the least restrictive and the most effective type of education placement for learners should be the *regular classroom.* Other more restrictive types of programmes may be considered only when regular classroom placement cannot provide the intensity of treatment necessary in the interest of the learner. The Seminar established that in practice, a balance is necessary, between the two goals of effectiveness and lack of restriction. A further implication in this respect is that special educational placements of learners have to be considered temporary and have to be reviewed regularly. Nevertheless, the intervention should continue at a selected placement for sufficient time, to fortify academic and social progress of the learner, before moving into a less intensive and less restrictive type of intervention.

The few countries that have attempted to practice this design, have found that quite considerable administrative and management problems inhibit the "ideal" implementation of the principle. Nevertheless, its impact on policy decisions has already been felt in the acceptance of integration in ordinary schools as an important modality.

Countries have also found that there is a second far reaching implication for implementation, in that the approach to diagnosis and categorization has also to change.

Assessment procedures have now to move from those which categorise children into one or more "standard" groups, such as the various sensory disabilities, to those which describe an individual's special *needs* and what is needed to meet them. What is needed would now include analysis of the level of functioning of the child, analysis of the situations in which the child will normally function, and steps to alter the environment. Further, even within such traditional categorizations as visually impaired, or mentally handicapped, the implications are that these do not form a homogeneous group, but consist of *individuals* with *specific learning needs.* Hence the earlier assumption of *one* appropriate curriculum or methodology for a given *category* also becomes invalid.

The lack of technical resources in support of the change has been a severe constraint, as frequently indicated at the Seminar. New assessment instruments are required, particularly those which focus on needs. Multiple curricula, which cater to the different needs, are required. These take a considerable time to develop, and they require concentrated and sustained efforts by specialists for their development. Such resources are, as yet, unavailable in the numbers and quality required, in most of the countries attending the Seminar.

Thus, while the above described the idealized general philosophy, and implications of providing for the Rights of the Child who is disabled, the Seminar recognised that it also portrays how far countries are from the ideal of the most effective and least restrictive environment for the education of the disabled child.

Nevertheless, the initiatory work in a few countries helped the Seminar to identify a number of practical lessons. For example, the tactical and pragmatic steps to be taken within the above framework of desegregation, form a continuous spectrum of stages moving towards complete integration and the removal of stigmatization, from current practices of segregation and discrimination. Several of the general principles involved were identified by the Seminar. These include, a gradual movement from the important starting point of physical proximity to non-disabled peers (integration for short periods) to functional and pedagogical integration with them, and then to social integration within the micro-society of the disabled learner, and finally to societal integration in the larger society.

Thus, it is possible for countries to make even a small beginning, provided this perspective plan is kept in view, and gradual deflections made along the spectrum towards the ideal. Aside from the overwhelming importance of *commitment by Governments and people in society, to the cause of the rights of the disabled,* in the context of human rights, a very important determinant for the rate of movement in the direction of integration, is the *availability of the appropriate services* to meet the special needs of the disabled learning child.

This, in a practical way, points to an important criterion which may be used to establish the pace at which services to the disabled may be planned and implemented. The countries that have initiated action, have now moved to concentrate

on this pre-requisite criterion -- the enhancement of the availability of adequate services, such as the training of the required numbers of teachers to the competency levels demanded by the changed philosophy. A second aspect relates to the adequacy of learning-teaching equipment and materials required in integration situations.

Specialist consultants to the regular teacher (resource teachers) are beginning to appear in school system. in several countries. Aside from providing an identifiable source of special assistance for the classroom teacher, more learners can be served by the regular class-room teacher, when supplemented assistance is provided, making this mode at present, highly cost efficient.

As in the previous classroom integration there is hardly any segregation from non-disabled peers, thereby providing for physical proximity, academic growth, and social competence.

Unfortunately, while the mode has been found to be very promising, it has yet to reach a state of practical effectiveness, in most countries. Quite often, the consultant, who is usually itinerant, is unavailable at times of crisis, when the class-teacher needs assistance most. A single itinerant consultant is very rarely able to provide for all the specific needs of the various learners. While in the "classroom teacher only" mode, there is no special identification of the disabled child, the presence of the consultant underlines the presence of learners with problems.

Placement in regular classrooms with specialized support services is beginning to be considered in some countries. Direct services are provided to learners on a regular schedule basis, while the primary responsibility for instruction still remains with the classroom teacher. This is an extension of the itinerant consultant model, and often the services are provided by more than one itinerant consultant. These services are frequently "hidden inside" guidance clinics attached to schools. When the human resource service is itinerant, as is the case in most countries using this mode, the same problems indicated earlier appear. The lack of expertise spread of the resource persons again is a problem. Often short-term tutorial or intervention services are directed towards the development of a few skills and not towards the comprehensive in-depth service that is actually needed by learners. Conflicts also occur between the resource person or consultant, and the classroom teacher, ending in mutual recriminations which assume more importance than the child being helped.

Perhaps, the problem that has caused the most serious concern in regard to integration, is the variable attitude to it at the implementation end of the programme. As a result, even when integration is adopted as a policy, a variety of "models" (or "aberrations") of implementation have begun to appear in the field situations.

Even in a given school, where integration is being undertaken, hybrids of various "interpretations" of integration may be the reality, depending upon the particular teacher undertaking the tasks.

In one interpretation, each learner is provided merely an opportunity for an education, rather than an environment where an *adequate* and *relevant* education

is guaranteed. If, for whatever reason, the learner is unable to make use of the opportunity, it is not necessarily the school's obligication to amend the situation.

Another interpretation defines the task of education as remedying the conditions that cause "pain". Its function is remedial – to eliminate evils, not to realise an antecedent plan for good. Special education evolving bit by bit, – piecemeal – becomes a response to the frustration, difficulties, and pain that teachers experience with disabled children in regular classrooms.

A more humanistic interpretation starts with the premise that as a humanistic institution, the school, should be vitally concerned with *both* the development and realisation of the learners' best potentialities, and the encouragement of cooperative group processes.

It is evident that in terms of the amount of effort provided to educate disabled learners, the above set of interpretations also reflect a hierarchy going from the least to the most effort required to provide the education service to the disabled learner.

Special institutions

The Seminar acknowledged that in terms of intensity of service, the various forms of segregated (special) institutions, do have the potential for considerable support to the disabled. Aside from high costs, which may inhibit mass replication, the preparation of the disabled child for entry into the larger society is a complicated process in such institutions, especially in terms of social aspects. In most countries, the disabled learner is isolated for a considerable time from peers and others who do not have problems. Unless very careful programming is done, the *disabled,* consciously or unconsciously, are "trained" to act as *disabled,* rather than as *ordinary citizens with special needs.* Generally, their problems rather than the strengths are emphasised by the very nature of the intervention being intensive and sustained. The disabled child becomes strongly dependent on the rigidity of institutional life, which makes it hard to leave the institution

If educational inputs that ordinary children are obtaining in regular schools are provided, such as in hospital schools, the functional correlation with remedial measures in these institutions, their chief input, requires a great deal of effort.

The progress of planning

While the Seminar expressed the convictions present in their respective countries regarding the above policy frameworks, it was also admitted that progress has been slow in all the countries, when the vast needs are kept in perspective. Practices that have existed for a long time, such as at the highly "proactive" special schools and centres, are not readily changed. Linear extension of the special schools may still be the image of extended services among some national decision makers, even if the coverage possible within available funds can be seen to be minute.

Many different organisations and agencies may have initiated action on behalf of the disabled. While undoubtedly some of these have had very beneficial

effects, they have generally been conceived on a micro scale, with little or no thought being given to the additional variables, constraints, and even strengths and resources that have to be taken into account when the macro dimensions of mass implementation are the focus of attention. What planning took place, often remained sporadic and not envisaged as an integral component of an education system that is to serve the entire action.

However, with the advent of the major development efforts in the universalization of the education, the Seminar considers it most timely that systematic planning for mass delivery of education services to the disabled be conducted in conjunction with, and as an inseparable component of, this programme for universalisation. Similarly, for other levels of education, the planning for special education has to be integrated into the total educational planning effort. Further, the needs and requirements of the disabled also underlined the importance of support services from other planning efforts, such as for health, nutrition, income generation and employment. Thus the planning has to be holistic and comprehensive, with the needs of the disabled as the central focus of the planning i.e., needs as learners, needs as citizens.

Overall Planning Approaches

The demands in macroplanning for special education are not necessarily those for ordinary education services. For example, macro planning for ordinary education can assume a regular cohort of children entering school from each geographical or administrative area. Where and how many disabled children may seek educational services cannot be predicted in the same way (except that in certain highly poverty stricken areas greater numbers of the disabled may be anticipated to be present). Planning may also involve prioritizing the kinds of disabilities to be served first, and to what level. If mildly disabled children are already enrolled in school, they would form a priority group for action.

The Seminar took note of the uncertainties in the presence of the disabled over space and over time, in any given country, and suggested that decentralized planning has considerable merit in meeting this phenomenon. The Seminar recognized that, for the planning of ordinary education services, education systems in the countries have already developed a number of decentralized planning approaches and modes, which have characteristics that lend themselves to incorporate decentralized planning for special education. In this respect, the Seminar paid special attention to area planning for the delivery services to the disabled as one possible modality.

Composite area planning

The seminar defined planning of a package of services in a specified sector the concept of integrated services. The size of the area is determined by the criteria of economic viability and geographical feasibility. Economic viability is considered in terms of cost effectiveness of the services, while geographical feasibility is considered in the context of distribution of the disabled children, location of educational institutions and the ease of mobility (transportation). If the size of the area

coincides with the size of the development unit for educational or socio-economic planning, it is also convenient for the development of educational services for the disabled as well. For example, a school complex comprising of a cluster of institutions or an education "block" or "district" can be the unit for planning the services.

Further, the seminar defined another dimension of the composite area planning: the comprehensive nature of the package of services, including prevention of disability, identification and assessment of the disabled, preparation for education, educational provision, and rehabilitation. These services are planned within the framework of the structures available within the area with a provision for augmentation wherever needed. The "composite" makes the services local specific. It certainly requires a co-operative enterprise, incorporating the efforts of the local functionaries from different Government departments, local chapters of the non-governmental agencies and the local community. The mobilisation of local resources, augmented by additional inputs, strengthens the composite area planning.

The operational aspects for overall planning were discussed at some length. The Seminar identified the following as being among those of particular importance:

i) Estimation of target population

This has been referred to earlier, and the Seminar emphasised that the estimation should encompass all the educationally relevant groups, such as the age group for the universalization of the first level of education, extending downwards into pre-school ages for early identification; assessment and preparation for education; and extending upwards for secondary and technical and vocational education. Further, both the mildly and the traumatically disabled have to be included in the estimation of the target population.

ii) Legal framework

Several countries have attempted to establish a concrete legal basis for special education. In many, the legislation on education for ordinary children has been used to cover disabled children as well. In a few countries, special education legislations have been enacted specifically for the education of the disabled, which reflect and make legitimate the nation's commitment to serve this group of the population. The timing of the establishment of legislative coverage for special education will vary from country to country. It will depend also upon the particular approaches utilized for providing the mass delivery of education for the disabled.

iii) Planning priorities

Especially in the context of mass implementation, the Seminar recognized that establishment of priorities frequently involves reconciliation of the claims of what is "ideal", and what is "feasible" for *maximum spread* of at least *basic services* to the disabled on a *nation-wide scale*. The Seminar stressed the need for pragmatism in the context of a country's specific cultural, social and economic scenario, rather than merely the transportation of external models to national situations.

Educating the disabled

Certain population groups need to be provided priority, such as the rural disadvantaged populations, if the incidence of disability is higher than in other populations. This would reverse the current, de facto, priority of serving urban areas, as seen by the establishment of special centres in these more affluent area. Such priority setting immediately establishes corresponding priorities for resources, development of infrastructures, delivery of material support, supervision and quality control, and monitoring and evaluation of the programme of action.

Priority setting would also involve phasing the development of the mass delivery of education services to the disabled. The phasing may refer to successive targets for mass coverage of one or more disabilities, and/or the scope and comprehensiveness of the coverage, starting with at least a minimum service to the maximum number of disabled. The Seminar indicated that one such priority area would be the use of regular classroom teachers for the first initiation of a special education service (even of reduced scope and breadth) by training these teachers to deal with children with mild disabilities and sensory defects. Other disabilities may be planned for in the total plan, and added progressively. Similarly, the regular teacher may be supported by a specialist teacher serving an economically viable and geographically feasible area.

iv) Management aspects

Overall planning has to take into account the unique management needs of special education, particularly when it is an integral component of the total education system of a country. Among these management issues are incentive actions for teachers, parents and/or learners to participate in special education; inter-relationships with other Government departments or with voluntary agencies; development of functional rural resource centres; integration of the disabled in ordinary schools; provision of resource teachers; referral services.

The Seminar considered that decentralized management was more likely to meet the real life management problems in the delivery system than a purely centralized management system. Such a decentralized management system, as has been demonstrated as feasible in some countries, may incorporate Government and non-government personnel; staff from various support governmental departments and agencies other than the Ministry of Education; and parents of the disable and community members.

Nevertheless central management aspects are also required. For example, a school which has had disabled children over several years, now finds itself without such learners. While this kind of management problem has to be solved through decentralized decisions, national management regulations have to provide the authority for the necessary decentralized actions to be taken, such as to transfer of teachers from the above school to another school which requires the teachers' competencies, and also to shift the material support. Similarly, national management regulations would have to accommodate the decentralized management functions of rural resource centres, such as those introduced in some countries to extend services in special education to rural areas which have widely spaced schools in sparse population areas.

Establishment of decentralized delivery network structures, whether for personnel training or resources production or for any of the other support actions in the mass delivery of education to the disabled, the Seminar indicated, was inevitable if services were to reach disadvantaged areas. However these structures are likely to be complex for management purposes and have therefore to be considered in their totality as an essential component of overall planning and not generated in an ad hoc manner as random needs demand.

v) Parental and Community Education

All efforts for the mass delivery of education to the disabled, the Seminar stressed, have to have the active support of the parents and of the general public. This is profoundly important in the context of the new policy dimensions of the human rights of the disabled, and the national commitment to the universalization of the first level of education. Support from parents include their positive enthusiasm to send their disabled children to further their education; continuity of intervention efforts for the disabled at home; support for the programme in the locality, through material and other contributions. Overall planning has to incorporate this aspect directly in the efforts for mass delivery of education to the disabled.

vi) Preventive measures

The Seminar was emphatic that the overall planning has to incorporate the dimension of prevention of disabilities, while planning to provide educational services to those who are already disabled. Since a large proportion of the current disabled children would not have been in this condition had proper nutrition and other health and sanitation aspects been fulfilled, the Seminar indicated that overall planning had a significant responsibility to ensure that all preventable disabilities would be in fact prevented, thereby reducing the disability populations of the future.

vii) Research Efforts

It is fortunate that the countries attending the Seminar have not only recognised the critical importance of research for the delivery of special education, but have also initiated investigations that are culture and society specific, so as to counter the unevaluated introduction of learning sequences and models from developed countries. One country has institutionalized research with the specific purpose of supporting the integration programmes. In overall planning, the place of research, the Seminar concluded, must be established as vital. Some of the research must be of the operational kind, so that the phase lag between investigation and field implementation may be reduced, and the research conducted in the context of real life parameters related to mass implementation.

Aside from "academic" and padagogical problems which require considerable further efforts to enhance the quality of special education, in an indigenously relevant context and in harmony with the social and cultural mileu, the Seminar highlighted that a number of other problems had also to be investigated, such as

the management problems in mass implementation; teacher effectiveness; functionality for life of the educational inputs to the disabled.

viii) Curriculum Management

The Seminar was deeply concerned about the substantial work in curriculum development and management that needs to be done in all the countries prior to introducing integrated programmes for the education of the disabled. Perhaps countries have not given this aspect the due importance it deserves in the context of integrating the education of the disabled in ordinary schools.

To begin with, several countries are still undecided as to what technical "tools" are to be introduced on a mass scale. If it is Braille, is it the international form or one based upon a national language or on the mother tongue of the learners or contributions of one or more of these? Should it be "total communication" for the hearing impaired or sign language and finger spelling, or sign language alone? If sign language is being introduced, then of what kind?

Countries reported to the Seminar the serious adverse effects on the programmes emanating from indecision in this regard.

The Seminar felt strongly that firm policy decisions have to be made about these aspects very early so as to prevent chaos in the system and inordinate delays in the various support actions essential for mass implematation, such as the production of materials, development of alternative curricula, and training of teachers.

The discussions were quite definite that especially when integrated education of the disabled is the preferred action modality, there is an immediate responsibility on the designers to ensure through adequate learning sequences, that the very same intended learning outcomes and objectives specified for teaching and learning in ordinary schools, are also made attainable by the disabled learners, to the maximum extent possible.

Curtailment of the intended learning outcomes must be done only as a last resort.

One country represented at the Seminar has initiated an extensive and rigorous programme to design alternative activities and experiences for disabled learners, geared to achieving the *same* learning outcomes as those used in the usual curricular teaching and learning for non-disabled learners. This would involve alternative trans-sensory learning episodes focussed upon the same intended learning outcome. The changing of Science and Mathematics learning activities, for example, that are heavily "visual" based, into other alternatives, to provide for children with visual disabilities, requires a great deal of homework, prior to the introduction of such children into the regular class rooms. Common practice now leaves merely crude factual recall as the only level of learning. Similarly, language lessons, such as for sound blending, that are for regular class teaching, require special modification to accommodate children with hearing disabilities.

Curriculum management, the Seminar concluded, must also define the prerequisite or entry competencies learners must have before undertaking a given

sequence of learning. At the beginning levels of learning, these competencies may involve, for example, orientation and mobility and braille for the visually disabled; or basic communication skills for the hearing impaired; or experiences with fundamental cognitive operations for the mentally disabled. Developing learning sequences to establish such fundamental competencies must also be the responsibility of those designing alternative curricula for the integration of the disabled into ordinary schools.

The Seminar pointed out two other areas for urgent development – diagnostic techniques and evaluation techniques – required for effective integration of the disabled in ordinary schools.

It is also likely that specific guidelines would be required, for the learning/teaching system, from those designing curricula, indicating the appropriate structuring, sequencing and chaining, and reinforcement of learning, that may be utilised in the various learning/teaching situations for disabled learners in ordinary schools. The Seminar underlined the importance of flexibility in this respect, since an important criterion of design is the optimum match between the guidelines and the individual pace of learning of each disabled child.

The Seminar emphasized strongly that modified curricula and learning/teaching sequences should be so designed that more than the cognitive and some aspects of the psychomotor, are provided for. The domain of the affective, including aesthetics, culture, values, emotions, which are now being stressed as essential for all learners in the education systems in all countries, has also to be embodied in the learning situations for the disabled. Pervasively, an important consideration in the design of modified curricula and learning/teaching situations is the inclusion of opportunities for the enhancement of the self-concept, of independence, and of human dignity, of all disabled learners.

Since the provision of special education is taken to be integrally associated with the total education system, the Seminar pointed out that the development of modified curricula and learning/teaching sequences for the disabled must reflect the new trends and reforms that are emerging in ordinary schools in the education system at all levels in all countries. The education of the disabled must not lag behind the efforts for quality improvement in education being currently introduced in the countries.

ix) Personnel Training

Personnel training in the service delivery design indicated later, or for any other delivery system for integrated education for the disabled, is required for the regular teacher and for the support-teacher. Orientation of heads of the institutions serving as the members of the special education delivery system, and of educational management staff at different levels of the organisation, are also vitally needed for effective implementation.

The Seminar considered in particular, the nature, duration and modalities of training teachers from regular schools, to participate in the integrated education of the disabled.

Educating the disabled

Learning from the experiences of training very large numbers of teachers for the universalization programmes in the countries, the Seminar asserted that rapid mass training of teachers can indeed be done at levels of accepted quality, if the training event, though of short duration, limits its scope and establishes its training input for a highly selected number of competencies only, and with the goal of a high level of performance by the teachers in their classrooms. This contrasts with attempts to cover a large canvas of competencies in a short time, ending up with superficiality, and token "training" which does not equip the teacher to practice any area of competence in the classrooms. The training indicated above may be conceptualised in terms of a designed, sequenced, chain of training events for prioritised sets of competencies. The first set of essential competencies may be provided in the first cycle as the entry point for special education services. It may then be backed by on-site inputs for staff development, with the help of the support-teacher. Progressive training inputs, in terms of selected sets of competencies, may be provided to enrich the repertoir of the teacher, in successive short training events.

The Seminar cautioned that the process of limiting the scope of training events requires to be done carefully and systematically. The first step in this design operation will be the identification of practical competencies the teacher should have for providing education to the disabled in ordinary classroom... The selection of particular competencies for a given training event will also depend upon the first competencies that are to be developed in the disabled learner. One country at the Seminar has taken orientation and mobility and basic life skills; and Braille, as the only two sets of competencies to be provided for in the initiation of integrated education for the visually disabled in normal schools. Thus the ability to perform in respect of these two would form the basis for the first training event for the teachers.

In the context of these two sets of competencies to be provided for the visually disabled and not counting the specific skills and knowledge the teacher must acquire in regard to these the following kinds of general teacher competencies, given as examplars only, would be required:

Planning teaching strategies

Competences needed

Teacher should be able to:

- design a variety of alternative teaching strategies;
- develop plans for using human and material resources;
- develop a flexible time schedule that provides for the learning, physical and social needs of each student;
- plan appropriate arrangements and adaptations of the classroom physical environment,
- plan appropriate adaptations of instruction to the needs of the disabled child.

Implementing teaching strategies

Competencies needed

The teacher should be able to:

- prepare or plan individualised instruction;
- maintain a variety of grouping patterns that provide opportunities for students to reach social and academic goals on the basis of psycho-social development;
- acquire, adapt and develop instructional materials necessary to achieve learning goals.

Facilitating Learning

Competencies needed

The teacher should be able to:

- use various techniques to manage individual and group behaviour;
- conduct class activities in ways to encourage student interaction;
- provide instruction in the development of coping strategies.

Evaluating learning

Competencies needed

The teacher should be able to:

- Collect and record data to evaluate student progress;
- use evaluation data to assess the attainment of goals and to set new goals.

The above mode of successive short-term training implies that such sequences of training would need to be decentralized to be as close to the functioning teacher as possible. Further, the training in each event needs to be heavily practice based.

The Seminar felt that packages of training, designed in the manner indicated above, may be introduced in the regular pre-service teacher education programmes as well, so that future cohorts of teachers would have these competencies by the time they graduate from teacher education institutions.

Regarding the modalities, the Seminar felt that self-instructional material may be used more extensively than at present, coupled with the various forms of distance learning available in a country. The materials may be sent as a pre-face-to-face-interaction learning programme of a few weeks duration. The media (educational radio and TV) being used in some countries may also be utilised towards this end. The Seminar recommended the use of simulated exercises, workshop ap-

proaches to learning, role play, investigatory assignments, as learning experiences for the trainees, to help them internalize the concepts and practices involved. It was also important to incorporate some components of "production" (such as of learning materials or equipment) in the programme, so that training and production are integrated in the learning process for the teacher undergoing training.

The support-teacher will require longer training, with the competencies not only to deal with the education of disabled, but also to organise staff development activities for teachers in schools within his or her jurisdiction. The Seminar indicated that, nevertheless, the design considerations indicated above apply here too.

The current educational quality improvement programmes being introduced in all countries, have already established extensive infrastructures for decentralized training of teachers. Some countries have institutionalized the decentralized training by developing networks of decentralized resource or learning centres that reach out into remote rural areas. The Seminar emphasised that these infrastructures have to be mobilized for work in special education too. This would be a further implication of integrating special education with the total education system of the country.

x) Aids and Equipment

The Seminar was convinced that the success, or failure of a programme for integrating the education of the disabled in ordinary schools depends critically upon the availability of learning and teaching activities for the disabled in the classroom. This means also the availability of aids and equipment for learning purposes. Generally, these aids and materials have to be specially designed, in keeping with the considerations for the disabled learner achieving the same intended learning outcomes as the ordinary learners. The ratio of disabled learners to ordinary learners in the classroom is a vital decision to be made in this respect.

Several countries reported significant progress in this direction, using low or no-cost, locally available materials.

The Seminar recognized that infrastructures and delivery mechanisms for making these aids and materials available in the classroom, are essential. A considerable degree of local specific decision making as regards the quantities and types of requirements will be inevitable. Decentralised resource centres, such as those established in rural areas in a few countries, can play a vital role in the design, development and provision of the aids and materials. The emphasis on training-cum-production indicated earlier, will also be a source of supply of these items, since the teachers, after training, will bring these items back to their respective schools. The Seminar reminded that a regular maintenance and repair operation for the aids and materials has to be planned for and built into the delivery system.

Hardly any country has established Braille printing units with the capacity to meet the demands for the mass delivery of education for the visually disabled, although smaller scale operations are available. Nor have other aspects of the supply of learning materials been clarified in the context of mass implementation, such as which books and materials to Braille, costs involved, transport and storage problems.

The Seminar recommends that these issues be taken up urgently at national planning levels, so that adequate facilities and delivery mechanisms will be available in support of the mass implementation programme. The same applies to essential items such as braille slates, canes, crutches, which are essential for the disabled attending the educational institutions.

Service Delivery Design

Against the backdrop of the above overall planning considerations, the Seminar next considered an appropriate service delivery design. The Seminar discussion pointed to several assumptions that have to be made, and to principles that have to be adopted, for the purpose of establishing a delivery design. In the interest of systematic planning, it is necessary to identify these concretely.

The Seminar discussions provided the following as an example of such an analysis:

i) Special education is a subsystem of the educational system. It needs to be developed as an organismic component of education with support from the relevant departments and agencies (Education, Health, Social Welfare, etc.)

ii) The educational provision for the disabled can be developed in ordinary schools with adequate specialist support leading to optimal integration.

iii) The range of educational provision can be planned within the existing education system through augmentation of the competencies of the existing staff and effective additional support services.

iv) The existing special schools and the proposed provision in ordinary schools are not viewed as competing systems, but as elements in the prioritised educational services to the disabled. It is possible to develop and rationalise the provision through reconstructing the existing structures and innovating new structures where no service structures exist.

v) The existing structures available in the educational system and the support structures (health, nutrition and social welfare) are optimally utilised for developing the educational services to the disabled.

vi) Area planning is more functional in terms of real life problems, and effective in terms of mass implementation, than only centralised planning.

vii) Support staff, particularly the support teachers, are placed as close to the service delivery as criteria of economic viability and geographical feasibility permit.

viii) The organismic integration tends to result in improving responsiveness of the educational system to the needs of both ordinary as well as the disabled children, as the competencies of the regular teacher to deal with learning problems improve progressively.

The above structure is only suggestive and can be adapted to the local specific needs of the countries. It however illustrates the incorporation of the design criteria indicated earlier, of holistic and comprehensive mass delivery, and mobilisation existing infrastructures.

The service delivery design envisages inter-departmental co-operation and co-ordination, which needs to be built into the planning process itself. The experience of countries in decentralised educational as well as socio-economic planning, can be useful towards this end. An inter-departmental steering group may oversee the maintaining of this co-operation. The specification of the functional roles of the relevant departments in the proposed service delivery design at the operational level will further facilitate the co-operation.

Implementation Strategy

By way of a summary in the context of the above planning consideration, the Seminar indicated the following as particularly significant in planning the mass implement. ion strategy:

- Selection of the area for holistic and comprehensive delivery of services.
- Establishment of rapport with the community to survey needs.
- Review of the existing infrastructures available.
- Planning for augmentation of the existing structures through developing competencies and induction of additional staff input.
- Orientation and training of personnel.
- Procurement of aids and materials for special education keeping in view needs of the schools in an area.
- Initiating action.
- Monitoring progress.
- Using feedback for improving functional effectiveness.

Specific Disability Areas

Having discussed the overall planning dimensions for the mass delivery of educational services for the disabled, the Seminar focussed down on a brief discussion on significant attributes and issues that have to be taken into consideration in the overall planning of services for the *different* disability areas, in terms of their specific characteristics.

The discussions, undoubtedly highlighted many commonalities or factors to be considered in planning among the disability areas and the convention of planning issues for these areas with those of overall planning for the mass implementation of special education. However, the recording of the issues has been done under the separate disability areas inspite of some repetitions of issues.

Visually Disabled

Visual disability is one of the most conspicuous of all disabilities and for that reason, perhaps, education of the blind dates far back in history, in all countries.

Although precise figures are unavailable in most countries, the data from one country for example revealed that a significant percentage of the incidence of blindness is preventable. The Seminar reiterated that intensive efforts for the education of the public to alleviate ignorance in this regard is a very important component of any programme of special education.

Education of visually handicapped children, as it has grown through the last two hundred years, has developed its own technology, and many of the products are available in the developing countries. Tactile substitutes for the print-script are available in the form of Braille; substitutes for maps, diagrams and devices are available or in the process of development. Development of representations of the science materials, apparatus and equipment of equivalent effective level to those for the sighted do challenge the ingenuity and originality of the researchers. However while these academic concerns continue, the Seminar agreed that a prime concern is to help the visually disabled children learn skills to become independent. These skills include those for orientation and mobility and for daily living.

Integration of blind children in normal schools, too, has come to have a sound base and several models have been evolved. However, the local-specific conditions prevailing in various countries demand a flexibility in the adoption of integration strategies. A variety is already emerging on the scene: the resource room in an ordinary day or semi-boarding school; the itinerant teacher serving blind children across villages or localities; area-resource centre at a school serving all categories of disabled children including the blind. Any strategy selected for planning and implementation, the Seminar stressed, must match the needs of the local specific conditions.

Training of teachers for visually handicapped children is another problem requiring urgent attention. The teachers of such children need skill-training in teaching orientation and mobility, braille codes, and preparation and use of aids and materials. The training, however, in view of the mass implementation requirements, may be only short-term in the early stages, extending from two-to-four weeks, and specialising in selected competencies.

The major problem, the Seminar indicated, in the universalization of education of visually handicapped children, relates to the development and/or production and supply of tactile and audio-materials for the blind, and of aids to low-vision children. For use of the blind, adequate braille codes are yet to be developed for contractions in language, for mathematics and science, and even for tactile diagrams. Braille books, slates and other devices, are required in large numbers and their production and distribution are serious problems. The Seminar suggested that countries in the region may well venture co-operatively in solving the problem of production and supply of such items.

Hearing Disabled

Next to the education of the visually disabled, education of hearing disabled children has been the best attended to in most countries although, as with the blind, the coverage has been very small.

The Seminar stresse. that significant numbers of children with hearing difficulties, have become so due to preventable reasons such as from misuse of antibiotics, neglect of infections. As with the visually disabled, public information dissemination in this regard, is essential.

The Seminar recognized that one of the major difficulties in the management of the education of the hearing disabled, arises out of the problems involved in early identification of hearing loss, which, if done could help prevent or reduce the occurrence of disability, and lessen the burden o.. special education provisions.

Hard of hearing childre. , the largest portion of this group of disabled, do have access to education in general. The real problem lies with the education of the deaf, and in this, with the instruction in language. Which sign or manual language be developed and used with the deaf is a serious concern. The Seminar agreed that total communication may be utilised best for language development of deaf children.

The Seminar concluded that special education provisions for deaf children would require special schools/classes, at least in part, since the develop.nent of their linguistic competence does take a long tiem. Integration of deaf children into normal schools can happen only after such competencies have been built. Social and function integration may, perhaps, be more realistic at the beginning.

Teacher-training programmes for educating deaf children pose another genuine concern. The teachers have to be trained effectively and precisely in the area of linguistics, especially to relate signs, sounds and meanings. Teacher-education courses for this target population require, therefore, to be of a longer duration than for many others.

Physically Disabled

Children with physical disabilities constitute a group, of whom, generally, a large portion happen to be in the normal school system. Medically, this group of disabled children includes those suffering from orthopedic disabilities as well as from neuro-muscular disorder. The variety of disorders makes the group of physically disabled persons quite heterogeneous, since the group includes those suffering from a lack of neuro-muscular control over their actions; others suffering from deformity in limbs, and still others who have lost their limbs due to amputation.

One country reported that polio is a major cause of physical handicaps among children of pre-school and school-going age. The Seminar agreed that the situation in other countries was not much different, and stressed the need to step up measures for polio-immunisation to prevent this disease.

The major problem identified by the Seminar in universalising education among the physically disabled children, is the problem of locomotion, which places

many demands in terms of the materials, artificial limbs, crutches, braces, wheel chairs and the like. These materials demand the removal of architectural barriers in school buildings. Physical barriers also exist between the residence and the school, especially in rural areas where a large proportion of the population waiting to be served live. Making education accessible to the physically disabled requires active involvement of, and participation by, the community in the programmes. The problem of transportation can frequently be met by co-operative efforts of the community itself.

Besides the management of transportation, the education of children with physical disabilities requires induction of related service staff from physiotherapy, occupational therapy, and when specialized services, into the infra-structure for the delivery of education. If such care services are provided, for example, the integration of poliomyelitis children, into the school system and into the society does not pose a servous problem, the Seminar agreed, since the mental apparatus of the child is usually intact and functioning normally. Beyond such cases, children suffering from moderate and severe orthopedic disabilities and neuro-muscular disorders need a far more careful set of strategies to integrate them into the normal school. The Seminar recognised that very little work in this regard had been done in most developing countries.

Mentally Disabled

About 2.5 per cent of the whole population is generally considered to suffer from mental retardation whether mild, moderate or profound. However, if children whose "mental performance" is "below par", according to "normative test performances", is taken as the criterion, this figure could rise enormously, because many from poverty stricken socially deprived areas would come under the 'mild' category, though the causes are in fact social and economic and not genetic.

The most significant problem, the Seminar agreed, relates, first of all, to the identification of this disability. All the participant countries have made some provision for the education of mentally retarded children, but are struggling to evolve valid criteria for their identification and placement. In one country, for example, the responsibility has been entrusted to the medical professionals alone. The Seminar agreed that for reasons of its complex attributes mental retardation should be looked at from medical, psychological and social viewpoints so that mistakes made on the basis of only unitary criteria, may be avoided.

The phenomenon of mental retardation is characterised by heterogeneity, the children suffering from general mental deficit and therefore performing at varying levels in varying areas. The chief purpose of education for this group, is the learning of independent living skills, leading further to economic independence. The efforts of schooling, the Seminar suggested, may be directed to prepare such children for work in non-sheltered surroundings, rather than the sheltered. Integrated education for those who are moderately or profoundly retarded may mean only social integration within the ordinary school setting.

A real problem for the educational system in attending to this area of disability, that the Seminar identified, relates to its largest sub-section - the mildly

retarded. Many of them are enrolled in the school system, they need care, attention and provisions. A line also needs be very carefully drawn between the mildly retarded *and* the slow learners, since any labelling brings a stigma and because socially disadvantaged children who are frequently slow learners due to social deprivation have to be intervened for in different ways to these with psychological mental retardation characteristics.

Chapter Three

PLANNING FOR IMPLEMENTATION: EDUCATIONAL SERVICES FOR THE VISUALLY DISABLED

The Seminar discussions moved into the next level of detail in planning, by considering issues related to planning for implementation.

To permit in-depth analyses, the Seminar decided to confine its discussions to the implementation of educational services for the visually disabled. The discussion also formed a bridge between the global planning aspects (Seminar component and the consideration of concrete issues in relation to teacher training for the visually disabled (Workshop component). The discussions on planning the implementation of educational services were taken up at the end of the Seminar component and also started the discussions on the Workshop component.

Taking into account, the nature of mass implementation – its unique characteristics and goals, a systematic approach was adopted in regard to the various discussion issues under the following classifications:

i. Manpower development

ii. Materials development and dissemination

iii. Implementation in schools

iv. Clear administrative lines of authority for supervision and quality control.

Each discussion topic was provided with the relevant theoretical content, points for discussions and some possible predictions through working papers. The intensive dialogue and the sharing of experiences of the participants enriched the outcomes of the discussions. The following issues were discussed in depth:

(i) Manpower development

a) Where should the manpower development occur?

b) How long should training take?

c) At which level and upon which skills should the training be based?

d) Which instructional strategies work best?

e) What specific training outcomes should be anticipated?

f) What literature is required to establish a successful teacher training programme?

(ii) Materials development and dissemination

a) What kinds of special materials are required by visually impaired children in an integrated setting and what are the priorities in preparing such materials?

b) What should the design principles be in the preparation of teaching aids in order to ensure cost-effectiveness?

(iii) Implementation in schools

a) Is 'Integration' a rigid concept or can there be variations?

b) Whom should be served?

c) From which labour pool should workers be recruited?

d) How can resources be attracted in the reality of so many competitors for the same social development funds?

e) Is a particular development sequence recommended?

f) What is the partnership between the Government and voluntary organisations?

g) What techniques are useful in developing co-operation and programme continuity with parents, regular teachers and administrators?

h) How may the responsibilities of resource teachers, and regular teachers in integrated education programmes be defined?

(iv) Clear administrative lines of authority for clear supervision and quality control

a) What indices will indicate achievement against objectives?

b) How could visually impaired children be located and evaluated as suitable for integration?

c) Is integration cost-effective and how may this be indicated?

The following are the salient features which emerged from the discussions on the above issues.

(i) Manpower development

Development of sufficient and appropriate manpower seems to be a critical aspect in the mass implementation of service programmes for disabled children. Training at the appropriate levels may facilitate the regular teachers to understand the implications of blindness and plan their teaching strategies accordingly. The existing teacher preparation programmes or national institutes or regional institutes can initiate effective teacher training programmes for the development of manpower.

Keeping in mind the outreach requirements of the universalization of education for the disabled, the Seminar/Workshop stressed the immediate need for training personnel in large numbers.

The Seminar/Workshop therefore emphasised the need for training programmes to train teachers for integrated programmes at various stages. Chained, structured series of short-term, intensive programmes were suggested, with well specified but selected objectives and competency performance expectations from the teachers, to meet quickly the urgent need for large numbers of teachers for the system. After each brief training for mastery of a limited set of competencies, the teacher returns to the classroom, and is recalled later for a further short training and the sequence is repeated. The Seminar/Workshop unanimously agreed that such an approach would be needed for rapid mass implementation of educational services for the disabled, especially to the visually disabled population. To existing teacher preparation programmes may continue to assume the responsibility for training leadership personnel for supervision, research etc.

Among the other suggestions given by the Seminar/Workshop on this topic are the following:

a) The manpower development programmes could be based on the administrative structure and cultural diversity of a country, and established in academically legitimised institutions.

b) The main target group in personnel development would be the regular teachers of the normal schools. Sandwitch programmes may be designed to develop sufficient competencies in those teachers to serve visually disabled children when they are integrated.

c) A practice-oriented 'task-based' curriculum is suggested for the training of personnel. For facilitating this, a number of self-instructional materials may be developed.

d) In planning the teacher preparation programme, competencies may be identified for each course area, and a defined level of prescribed competency has to be attained by the teacher within the period of training.

e) Culture-specific literature has to be developed for training the teachers. In case of special needs, certain literature can be translated into the local medium for helping the grass-root level workers.

(ii) Materials development

The success of any integrated programme depends upon the provision of a variety of aids and materials, such as appropriate learning materials for the learners, aids and appliances for the learning/teaching process, and literature for the training programmes.

Materials production is an essential part of the implementation of any successful integrated education scheme for visually disabled children. A production centre can develop and distribute commonly used items, such as reading readiness materials, geometry boards, and science kits.

Establishment of a materials production centre can help an integrated education programme in the following ways:

- resource teachers can devote more time to instruction rather than the preparation of aids and braille materials for the visually disabled children;
- common methods of materials production will help different integrated education programmes to have uniformity in the quantity and quality of materials supplied; and
- production of large numbers of materials may considerably minimize cost.

The discussions on the above issues identified the following points that were critical to planning for implementation:

- The Seminar/Workshop realised the importance of adjustment materials required for visually disabled children to study along with sighted children in normal schools. Even though no curriculum change is envisaged for visually disabled children in integrated schools, special curriculum approaches have to be adopted for providing educational experiences to visually disabled children capable of enhancing learning equally as those provided to ordinary children.
- As far as the material presentation is concerned, the following hierarchy was suggested:
  - Duplication of what is provided for the sighted children;
  - Modification of the lesson without changing the concept;
  - Substitution for giving the same approximate experience;
  - Omission only under unavoidable circumstances.
- The Seminar/Workshop stressed that all the text materials need not be given in the form of braille. Reader and recorder services can also help visually disabled children. Judgements regarding which are to be brailled and which are to be recorded are usually best made by the individual resource teacher. In some instances, groups of resource teachers may be asked to recommend common practices.
- Respective Governments may establish centrally located braille presses and produce and disseminate braille materials. It is suggested that braille presses and teacher preparation centres should exchange expertise for maintaining the quality of the material produced by the braille presses.
- While a resource teacher may be expected to prepare some proportion of the aids needed by visually disabled children in the classroom, a national mechanism for their production, storage and distribution has to be set-up.

- Visually disabled children require variety in their learning experience. Aids must be prepared with low cost materials available from the market and the environment, in addition to what may be supplied from a central source. The prepared aids must be used well and changed often.

- When a country is not able to afford mechanical braillers for visually disabled children, a slate and stylus for each child is the only viable writing aid.

- As far as possible, the teacher should try to duplicate the learning experiences for the ordinary children, for the visually disabled children too. When this is not possible, the experience can be modified or even substituted. Under rare circumstances an idea may be omitted. This should be the order of priority.

(iii) Implementation in schools

Like manpower and materials development, implementation of the integrated education programmes in the schools is a very important aspect in the programme development on a national level. The Seminar/Workshop recognised that mass implementation of the educational services for the visually disabled children involved critical issues like the following which had to be considered in detail prior to implementation:

- selection of a suitable integration mode for each specific situation;

- readiness of the implementing agency;

- availability of visually disabled children;

- transportation arrangements for the children;

- involvement of the parents in the educational programmes;

- placement and salary of the specialist resource teacher; and

- cost of the integrated programmes.

The Seminar/Workshop emphasized the following measures for implementing integrated education programmes in schools:

- As the needs and nature of different programmes have different characteristics, one unique programme strategy may not be suitable to meet the variety of local specific situations. Flexibility in developing practical strategies would be very important.

- Integrated education does not envisage the closing down of special schools. The integrated programmes and the special schools have to be treated as complementary to each other. In specific circumstances, visually disabled children may be recommended to a special school. Children from special schools may learn for designed portions of time, in the integrated programme. Resources, especially human resources,

available at special schools may be made available in various capacities for the integrated programme.

- As total integration may not suit all visually disabled children, the target population has to be identified carefully, and reached through the mass implementation of educational services. National services should provide a continuum ranging from medical and other services to integrated education of the visually disabled.
- Teaching visually disabled in the normal schools demands specific competencies in the teacher, such as braille transcription, teaching orientation and mobility, observing mannerisms. Hence, visually disabled people may not be encouraged to act as teachers for visually disabled children especially at the primary level.

  (However, visually disabled teachers can function effectively as teachers of selected subject areas, for the normal children).
- Educational goals for the visually disabled should match goals set for the total population.
- Informal and formal avenues of communication with Governmental services relevant to the visually disabled, at all levels, should be established and nurtured.
- Established agencies for the visually disabled in both Government and private sectors, should be partners in furthering integration efforts.
- Education of the visually disabled in normal schools involves large numbers and kinds of personnel. Wide competencies in the management of inter-personnel relationships must be included in a training programmes.
- Literature geared to specific target groups such as parents, regular educators and administrators should be developed during training programmes or produced and disseminated by a national centre.
- For the smooth functioning and efficacy of the programme, the resource teacher within the school campus should be treated as a fullfledged faculty member of the school, with equivalent status, appropriate salary, and promotion opportunities.

Though co-operation is solicited between the Government and voluntary agencies, the respective service delivery modes differ. Voluntary agencies have specific goals, fixed limited target populations and specific fiscal budgets. The limited target enables the voluntary organisations to follow particular service delivery strategies which may not be suitable for the mass implementation system, or which may contradict national strategies or objectives advocated by the Government. The designs used by voluntary agencies may have ignored several of the critical variables significant for mass scale implementation.

In the process of mass implementation, however, the strengths of service delivery strategies followed by the volutary organisations can be taken into account.

Further, lessons in management practices related to dealing with uncertainties in real life problem situations, may also be learned from the functioning of the voluntary agency programmes. Except for these specific strategies, the whole service delivery system of the voluntary organisations usually cannot be taken as examplars for the mass implementation.

(iv) Clear administrative lines of authority for supervision and quality control

Adequate supervision of integrated education programmes is imperative. It would give a concrete feedback of the merits and limitations of the programmes as they are implemented. It helps the administrator to evaluate the programmes in terms of different viewpoints such as the learning achievement of visually disabled children, acceptance of the integrated programme by the school faculty, accomplishments of the resource teacher. Further, it provides for an early warning system to monitor major aberrations in the implementation of the programmes. The Seminar/Workshop suggested that supervision by the Government educational supervisory service can help in the following ways:

- Supervisory staff should provide on-the-spot professional assistance to teachers and visually disabled children. In the case of the former, supervision can act as one designed element in the "package" for staff development activities for the mass implementation programme.
- The monitoring and evaluation unit should conduct orientation workshops for the personnel involved in the implementation of integrated programmes, in terms of the field observations of implementation and the extent to which implementation objectives were being reached.
- The unit may also identify new schools for the mass implementation of integrated education programmes. Further, the unit may locate visually disabled children and assess them for school placement.
- The supervisory staff should provide liaison between the integrated programmes at schools and the teacher preparation centres, for quality control and for feedback to the training programmes.

The Seminar/Workshop particularly stressed the importance for monitoring and evaluation and provided the following guidelines for the supervision of the integrated programmes.

- The mass implementation procedure should have short-range as well as long-range goals, both of which have to be consistent with each other. Accountability for actions in the context of long range plans will provide a measure of accomplishment in overall programme development; short range goals for the management of the programme during an academic year will provide an interim yardstick in evaluating the programme, and provide a safeguard against serious deviations from the ultimate objectives of the programme.
- Job satisfaction, career retention, requests for advanced training and for in-service experiences etc., may serve as criteria for judging sustained teacher enthusiasm.

- For locating visually disabled children, the following suggestions are made:
  - Through "Eye Camps", especially in rural areas
  - Eye hospitals
  - Information from school teachers
  - Information from school children
  - Population centres
  - Heads of villages
- Adequate standardised indigenous tests that are culture specific o target populations, for evaluating the intelligence of children, are yet to be developed in most of the countries. The existing tests may not be appropriate for visually disabled children. The need for the development of indigenous intelligence tests for visually disabled children is felt. Teacher preparation centres for mass implementation may have a specific responsibility towards contributing to the development of these tests, because of their close association with the field situations.
- In looking at the cost effectiveness of integrated education programmes, humanistic and social development points of view are imperative. More than the mere consideration of teacher pupil ratios, cost of aids and appliances etc., the contribution to human rights, the social experience and life preparation for the disabled not to be dependent, should also be considered.

The growing problems of unserved and underserved visually disabled children should not wait. Their needs have to be attended to. An earnest attempt to meet these needs has to incorporate the goal of mass implementation in service delivery strategies, parallel to similar strategies for the universalisation of education already adopted by countries. Indeed, the goal of universalisation of the first level of education cannot be achieved without incorporating the universalisation of education for the disabled as well.

The Seminar and Workshop stressed that extensive and consistent efforts have to be made to enhance commitment and motivation for the programme at all levels of the education system. Through various channels, including mass media, the commitment and co-operation of the public at large have also to be generated, to ensure success of the mass implementation of educational services to the disabled.

Chapter Four

DEVELOPMENT OF AN EXEMPLAR GUIDE BOOK STRUCTURE FOR TRAINING TEACHERS OF THE VISUALLY DISABLED

This stage of the Workshop discussion represented a further detailed focusing of the topic of Special Education on one major problem in the mass implementation of education services to the visually disabled – the training of teachers. The Workshop stressed that the general design issues taken up here have parallel implications for the training of teachers in the other areas of disabilities.

The development of a structure of a Guide Book for Training Teachers was the further specific focus of the discussions at the Workshop. Here too, it was recognised that the structure being identified for the area of the visually disabled, had implications for Guide Book structures for other areas of disability as well, and could act as an exemplar in the development of these Guide Books.

Criteria and Guidelines for Developing the Guide Book

The Workshop considered the criteria and guidelines for the development of the Guide Book for the training of teachers of visually disabled children. The following emerged from the discussions.

During the earlier Seminar discussions, the participants considered strategies for mass implementation of educational services to the disabled. Taking into account the different factors affecting the planning of these services, it was decided to build up service modalities using the regular school and the regular teacher as the nucleus, with support from specialist personnel. The Guide Book therefore, needs to take into consideration the service delivery design described at the Seminar. The Guide Book may help the regular teacher to provide learning experiences to the visually disabled child using a variety of trans-sensory activities.

The Workshop also considered that the Guide Book needs to reflect the local specific environment, and the learning experiences built around the socio-cultural milieu of a community. For this purpose, decentralised curriculum planning and curriculum transaction constitute essential inputs. The Guide Book may be developed as an exemplar which can be adapted to the local specific needs in a particular country. Decentralised learning centres in a country, perhaps at the district level, could be considered for the task of adapting the Guide Book for even greater local specificity.

The mass implementation of the provision of educational services to the disabled implies training of large numbers of regular teachers scattered over distant areas that have limited resources. Such constraints are bound to require phasing, over time, of the formal training programmes, both pre-service and in-service. During the waiting time, the Guide Book can serve as a preliminary self-learning

guide for the teacher. Thus, it was considered desirable to develop the Guide Book in the form of self-learning materials.

Several countries have emphasized the "slogan" that "A blind child is a child first". However, it has been observed, even in these countries, that visually disabled children are usually taught and are expected to respond, only at the factual recall level. At the primary level, the blind child is as much at the concrete operational stage of cognitive development as the sighted child. Hence concrete experiences, involving preferably gross psychomotor movement, have to be the foundational basis for learning. Since the paths of entry of experience into the brain have been reduced by one channel, the eyes, additional experiences via other channels have to be provided, to make up for the loss of a channel, if children with visual disabilities are to be given equal learning opportunities as the sighted children. Even when experiences are provided, generally the major emphasis continues to be on providing a few tactile experiences to the visually disabled child, while the normal child receives a variety of activities for learning, some at higher cognitive levels also. The Guide Book, therefore, may emphasize the need for providing a rich variety of learning experiences using all senses other than the visual (namely, tactile, auditory and olfactory) and involving cognitive operations higher than factual recall.

Domains other than the cognitive have also to be attended to. This may therefore indicate a variety of activities for the mastery of concepts and generalisation involving different levels of instructional objectives, from all the domains. The Workshop felt that the material for illustrating the teaching of specific content may indicate a number of options in providing learning experiences covering all these dimensions of learning. These, however, are likely to appear in learning sequences or modules for the teacher, that follow on from the Guide Book.

The Workshop considered the format for the presentation of the material in different learning units in a Guide Book and suggested that the format may include instructional objectives in behavioural terms; proposed learning activities, including suggestions for additional reading; reading materials; worksheets; and self-check exercises. A suggestive content outline which may be incorporated in a Guide Book, emerging from discussions, at the Workshop, is given below:

Content Outline:

1. Introduction – objectives of the Handbook – its scope, competencies it purports to develop, instructions for its use.
2. Training methodologies – self study, practice based on systematic feedback, simulated exercises and role play, small group work, workshop approach to learning etc.
3. Sociological and psychological context of education of the visually disabled child.
4. The visual process.
5. Educational services – range of provisions – matching provision to special education needs – integrated education – developing services.

6. Resource room – resource centre.
7. Personnel – roles – relationships – co-operation – sensitisation of the personnel to new roles.
8. Class room organisation and student-management.
9. Teaching methodologies in the context of integrated education.
10. Curriculum planning and curriculum management.
11. Evaluation.
12. Teaching Language arts.
13. Braille reading and writing
14. Teaching Mathematics and Science
15. Teaching Social Science.
16. Physical Education for visually disabled.
17. Teaching aids for visually disabled children.
18. Orientation and mobility.
19. Daily living skills.
20. Involvement of parents, and community action.

The Workshop proceeded from the above consideration of criteria and content topics, to the next level of detail – of working out exemplar units that may be contained in a training Guide Book.

These units of the Guide Book are written at a relatively general level. They form a background against which further detailed learning could take place through specific learning modules. They also form "advance organizers" for those specific modules. For example, one of the exemplar units deals with initial language learning. After covering this general unit, the teacher trainee will have to proceed to the many specific learning sequences such as for teaching braille, or developing creativity through language, or developing, in the visually disabled children, images equivalent to the visual images present in national literature such as poems and drama.

The general units which follow in this report are of four types:

– General advance organizers for comprehending foundational topics (such as for the socio-logical and psychological backdrop)

  Exemplar (A) Psycho – Social Implications of Blindness

– General advance organizers for comprehending background technical textual knowledge (such as about the eye)

  Exemplar (B) Visual Process

- General advance organizers for comprehending the knowledge base, for support services to the integrated education programme (such as working with parents)

  Exemplar (C) Involving Parents in Planning Educational Programmes for Visually Bisabled Children.

- General advance organizers for teachin specific subject matter areas (such as Language or Mathematics)

  Exemplar (D) Pre-Requisite Skills for Language Arts for Visually Disabled Children.

The Workshop emphasized that each country needs to determine the particular selection of topics that may be incorporated in a national-specific Guide Book. No doubt some topics will be found suitable for all countries. But there are likely to be some topicls that need specially to be introduced, to reflect the attribute of the mass implementation programme in a particular country.

What the exemplars reflect in this respect is the level of generality which needs to be maintained in a Guide Book, that is more detailed than an "orientation", but is not at the level of specialist detail found in a subsequent learning module. Secondly, the exemplars reflect how they may be made to act as advance organizers for the subsequent specific learning modules, thereby creating a functional link between the Guide Book and the subsequent detailed learning sequences.

The Workshop agreed that the exemplars for the Guide Book in this report, should indicate different presentation styles that may be utilized for different content purposes. Hence the exemplars reflect variation in format, from verbalizing the specification of intended learning outcomes and structuring as a programmed self-learning sequence, to expository formats which incorporate programming in an "invisible" manner. The format of making visible programming principles by paragraphing and indenting in an apparently expository presentation, is also indicated. Here chained paragraphs provide advance organizers for a limited content coverage and indented portions form the equivalent of "frames" (though without immediate self evaluation/feedback elements). Reinforcement and practice of learning also have been illustrated through different means, such as worksheets, assignments, discussions, and spiral sequential development of content, where some repetition occurs as a content element dealt with earlier is raised into a higher or more elaborate level of learning.

The presentation styles are not comprehensively indicated. The main purpose is to highlight that for different content purposes, and for different topic areas, different presentation styles may need to be adopted in the Guide Book.

The exemplars that follow illustrate only some of the criteria indicated earlier. In the development of a national Guide Book, the Workshop recommended that the designers may need to consider in detail all the kinds of criteria indicated earlier. Further, the designs for the development of subsequent detailed learning sequences or modules, which would take off from the Guide Book, would need to be considered simultaneously with designing the Guide Book, so that functional coherence between these two vital sets of training materials will be maintained.

Exemplar (A)

PSYCHO-SOCIAL IMPLICATIONS OF BLINDNESS

Objectives

The teacher-trainee, on using this material, is expected to:

i) interpret the effects of blindness on a child;

ii) discuss the implications of a child's blindness for the parents/and the family;

iii) describe the prevailing attitudes of the community towards blindness and blind persons;

iv) analyse the effects of family and community attitudes on a blind child; and

v) describe his/her own role as a teacher in relation to a blind child, the parents and the community.

Overview

The present paper, as suggested by the objectives set above, attempts to orient the teacher trainee to four points, namely, (i) blindness is an objective phenomenon for the suffering person, related to his/her eye condition; (ii) for the community or society, blindness is a matter of reaction generated by prevailing attitudes; (iii) for the family, it is further a matter of emotional concern and anxiety and (iv) lastly, the emotional reactions of the community and family create a subjective phenomenon for the suffering child, who is made to suffer from these subjective effects in addition to the objective effects of blindness. An appropriate understanding of how these effects are created may help the teacher to understand and appreciate his/her role with respect to blind child.

A note of caution is required here regarding the scope of blindness discussed in this paper. The blind child is one who is either born blind or has became blind at an early age, so that the course of the child's development is affected. It does not include those who became blind at a later age.

Basic Effects of blindness

Blindness is a medical phenomenon. It relates to an impaired sense of vision. The organ responsible for vision is defective.

Important objective effects of blindness are present in the cognitive domain. Since the senses are the gateways to knowledge, the sensory deficit in vision reduces the chances of cognition. Moreover, vision is the most actively used sense by the

human being and knowledge grows in the human being, largely from visual experiences. The resulting effects of the loss of vision are therefore severe. Blindness imposes three basic types of limitations on the individual:

in the range and variety of experiences;

in the ability to get about;

in the control of the environment, and of the self in relation to it.

These three obstacles to independence and self-fulfilment have to countered though special education provisions for the blind child. A brief look at the three limitations may be helpful in understanding the losses in depth.

It has been estimated that 90-95 per cent of all experience comes through the eyes. Vision is the major mode of acquiring information about people, places and processes. Therefore, the blind child, by definition, is experientially deprived.

The blind child learns in pieces, in a *fragmentary way*. She has to have time to put these bits and pieces together to form a concept which is not exactly like ours, but which is hopefully, enough like ours so that we can communicate. The restriction in the *'range and variety of experiences'* contributes to this fragmentary learning.

Secondly blindness tends to create a very *sedentary* kind of existence. A blind person will just sit unless she is pulled out, motivated to get out and move about independently. She sits because of fear, because of a lack of skill in using information available in the environment for moving about in it.

Thirdly a blind person talks loudly in a room that is too small for a loud voice, or if she talks "to a corner" or to an empty chair rather than to another person, the common reaction is "how silly". But it is not silly. It simply shows how a blind person is very much at a disadvantage. Not knowing where one is, being unable to *control one's environment and oneself in relation* to it is a significant deficit.

Activity-1

i) Read the biography of Helen Keller or Louis Braille or of a nationally well known blind person.

ii) Observe the activities of a blind child and record her capabilities and limitations in action.

Community attitudes and reactions

Unfortunately, the deficits caused by blindness are not taken as objectively by the community as they occur to the individual. The reactions, however, vary from community to community depending on its *traditions, culture and belief.*

Blindness evokes different emotional reactions in different persons. Societies across the globe have developed their own images of blind persons, of their

capabilities and of their limitations. Even beyond that, they have developed their own ways of coping with the capabilities and/or limitations of the blind. Certain communities used to kill a disabled child. A Community depending upon skills of war for its survival, could not accord a place to a handicapped child. As society progressed towards being a welfare state from a warfare state, changes occurred in the total outlook. The blind persons became members of the society who needed to be looked after but not at an equal level with others. They were to live on 'charity'. Today, the scenario is changing. The community is based on the principle of equality and fraternity The motto is equal opportunities for all, including handicapped people, but this is a recent development. We still reflect certain stereotype responses and negative attitudes towards blindness, through our words and deeds.

Though psychologists and educationists do talk about individual differences in regard to all human beings, yet, we try to stereotype people. It is dangerous to generalise without sufficient experience and exposure to the characteristics of the blind. We come across very few blind persons in a life-time, but we tend to generalise about blindness on the basis of our limited experiences and our prejudices. Associating blindness and charity, the common tendency is to perceive a blind person as one who can make a livelihood only through begging, hence blindness implies a low level of living. Another misconcept on refers to attributing special talents to the blind, like musical talent, and fantastic memory power. Blind persons are like any other normal human beings. They have come to depend on their senses of hearing and touch as the sight is denied them.

Unfortunately, the *stereotyping* goes beyond the beliefs. It is reflected in the distortions in interactions with blind people. In daily life situations, the blind are denied opportunities, expectations are restricted, and thus we 'socialise' the impairment into a disability, which is further extended to become a handicap.

In addition to the stereotype attitudes of the general public towards blindness, there is a problem with language which also contributes to negative responses to blind persons. There are certain words and terms about blindness that are negatively associated in every country. "Blind alley", "blind rage", "blind passion", are terms which have become a common part of vocabulary in many cultures. Such common expressions reinforce the stereotype that the blind person is nothing, can do nothing, and can be nothing and is irrational i.e., much less than a human being.

People in the media need to be educated to write about blindness accurately and carefully. The public needs information, not only on the realities of blindness, but also on the techniques which make both the blind and the sighted person comfortable. How do you manage a blind person? How do you behave when you greet a blind person? How do you show a blind person where to sit down? How do you talk to someone who is blind? Most national or state public agencies working for blind people develop such literature. Where it is not available, teachers, themselves, can write such materials.

Some people are so inhibited, so shy, about being with a blind person that they are *hyper-sensitive.* They are afraid to use certain words such as "see" and "look". Regular classroom teachers are frequently faced with this problem, and instead of saying "look at this" to mean "explore and learn to understand this",

they say "Here, feel this". Most people are well intended, but misdirected in this way. They do not want to offend a blind person. The distortion in their understanding has resulted from stereotypic misconceptions of blindness. They need to be told that blind people are not frightened by the words "see" and "look". Accurate public information is one good solution to this problem.

The community at large effects a blind child not only becauuse of its general attitude, but also through behaviours in the immediate human contacts with the child, the parents and the family.

Activity – 2:

i) Interview some persons within the community of a blind child for their opinions regarding blind people. They may include persons of varying ages and varying status. Analyse their opinions.

ii) Introspect your own views about the capabilities and limitations of blind persons. Compare them with the analysis in (i).

Parental Reaction to Blindness

We form our reactions to the unknown and the unexperienced, on the basis of our general impressions. Blindness causes many types of reactions. When we come cross a blind child, the general attitude is one of sympathy or pity, but seldom of empathy. The reason is the general reaction, "such things happen to others and not us". But when it does happen, the parents feel at a loss for many social-personal and psychological reasons. The reactions occur on a continuum of neglect to over protection, and frequenty include both.

Due to the inability of most parents to understand the implications of an impairment, the impairment is perceived as a handicap. On one extreme is the response of neglect. Because it is felt that a blind person (lacking in perception or absence of perception) is devoid of all normal human functions of being an active member of the society. In some societies, parents interpret the birth of a blind child to be the result of some sin. In their own frustration and shame, the child is ignored and hidden away. The 'expectancy prophecy' comes true. The child develops into a dependent person who cannot contribute to society, a person of no worth. Overprotection, too, produces dependency in blind persons who could have learned to be otherwise.

A case history illustrates this. An intelligent, educated person was the father of a little daughter who was born blind. In spite of this man's intellect, out of despair and frustration, he let his heart instead of his mind control his behaviour. It was difficult for him to be objective about his disabled child. He and his wife took the blind infant home from the hospital and they loved her, and they fed her, and they kept her clean, and they dressed her – they cared for her as we all do with babies. The blind child grew up, and continued to grow, and when she was four, and when she was five and six and seven, they still took total care of her. At the age of nine, she still could not stand, could not walk, could not talk – because she had never been taught to do so. She was completely retarded, through overprotection.

Today that girl is about 22 or 23 years old. She is bedridden in an institution for the severely retarded because after so many years of dependence, it was too late for gaining independence. Neither the body nor the mind can develop rapidly enough to overcome lack of early use.

In between the neglect and overprotection ends of the continuum is the discrepant behaviour of parents which also adds to the problems of the blind child.

By discrepant behaviour is meant the gap between what a person says and what a person does/feels. The social structure is such that we try to say or act what is socially acceptable. Real feelings are rarely expressed, especially when they are contrary to the socially desirable ones. The parents of a blind child, at times, may exhibit a pose full acceptance of the blind child because society expects parents to stand by their children. But covertly, it is difficult to accept a child who becomes a liability. Overt rejection is manageable, but covert rejection does not deceive a child. It hurts psychologically. It affects not only growth and social relationships, but also the self concept, the very basis of a person's development.

Activity 3:

i) Interview the parents about their perceptions of the capabilities and limitations of a blind child; and compare with the perceptions of the community.

ii) Interview the parents of a blind child about their reactions over the blindness of the child. Analyze for neglect/overprotection.

Psycho-social development of a blind child is not affected so much by blindness, *per se,* as it is by the emotional overtones of blindness, communicated by the parents and the community. Children tend to achieve as much, and *only* as much as their parents and other significant persons in their environment expect them to achieve. Once the parents and the community treat them as incapable individuals, they are emotionally lost in the crowd of blind persons by being cast in the same mold as beggars.

Activity – 4:

Observe/interview a blind child to infer how she takes to the reactions of parents, peers and neighbours. Discuss in relation to their reactions.

Role of the teacher

It is in view of the above stated implications that a teacher is supposed to play her role vis-a-vis the child, parents, peers and the community. Specific understandings are required of the teacher, of blind children, to help develop a healthy self-concept in them. The teacher should be knowledgeable about the social milieu the blind child comes from and, should have faith in the capabilities of the child despite her loss of vision. Being a part of the community, the teacher may require amending her own reactions and attitudes. The next most important requirement is to counsel the parents, if and when required. Some awareness orientation for the peers and the community is required to help them to overcome stereotyping and to

build an encouraging climate for the child. The requirements are many and varying in view of the needs of the child. It is likely that the teacher will be continuously challenged to find solutions to many problems related to the care and education of blind children.

Activity – 5:

Suggest a programme of action for counselling parents and peers of a blind child to encourage them to maintain a developmental environment for the child.

Exemplar (B)

*THE VISUAL PROCESS**

Educators of the visually impaired are usually provided information on the anatomy and physiology of the eye by an "eye" doctor. It was assumed that only such a person could provide the accurate technical information necessary to understand eye conditions of children.

In training programmes, this often results in high-level, medically-oriented lectures which the trainees do not understand and in which uncertainties and, particularly, functional implications for integrated education of the visually disabled, remained unattended.

It is important for teachers to understand the common anomolies of the eye, prevalent eye diseases, and the impact of infection processes or trauma, but it is not necessary for teachers to be eye doctors. A simple but accurate explanation of the eye, and greater attention placed on the functional relationships among parts of the seeing mechanism, give an educator enough practical information.

There are several important reasons why a teacher of visually disabled children needs basic information about the structure and function of the eye:

- *Some eye conditions are temporary:* The educator needs to be alert to some common conditions which may warrant a "wait and see" attitude.
- *Some eye conditions are correctable:* The decision to seek and follow through on appropriate medical services, is often the responsibility of the teacher, who assists the family of the child in making suitable arrangements. Nothing is more futile or debilitating than to provide special education services to a child whose problem could be altered substantially with medical intervention or special corrective lenses.
- *Many eye conditions change with time:* Physiological changes, such as growth or deterioration, as well as changes in factors which influence psycho-visual efficiency, occur frequently. All, at one time or another, may alter a person's visual abilities. Moreover, the rate of change of visual abilities varies with conditions, and, to a great ext nt, with the individual. The educator needs to be alert to changing visual behaviours, and their inplications.
- *Certain eye conditions tend to affect visual performance in unique ways:* The educator needs to be aware of these predicatable effects of specific eye conditions.

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* Derived from standard reference documents on Opthalmology.

Other than the immediate family members, the teacher has a remarkable opportunity to observe visual behaviours of a child, to note changes or problems as they occur, and to assist the child and the family in seeking the most appropriate relief.

Parts of the Eye

(Basic details may be provided with the help of diagrams)

Functional Implications

Seeing is Complex

There are many subtle relationships between the network of chemical, physical, and psychological processes that result in "seeing". The complex mechanism is very delicate. Many variations may result from specific or non-specific causes. Trauma, toxins, structural defe , psychological difficulties, neurological distrubances, a host of seemingly unrelated physiologic imbalances, can, in one way or another, intrude. Disease, infection, and pre-natal influences are especially serious.

Most of these phenomena are far beyond the purview of the educator of blind children. In most cases, the damage is already done and the teacher is presented with the fact - a visually disabled child. However, teachers must be vigilant. They must:

- develop and maintain effective communication with qualified local eye doctors. On them depend the essential therapeutic services for visually disabled children;
- particularly be attuned to changes in the visual performance of children. These changes often signal data of relevance to the physician, and may, moreover, be changes more reliably noted in the "controlled" classroom situation than in the home;
- understand the inter-relationships between certain diagnoses and the functional vision of children, in order to make best decisions about placement, methods, materials, etc.

While there is some merit in discussing specific implications of specific eye conditions, that approach alone fails to provide the basis for understanding the functional complexities of this remarkable sensory system. More than one problem may occur within any eye, and often does. No single individual responds exactly in the same manner to any given set of circumstances. The full spectrum of human responses is available, and the individual's response to one or more kinds of visual disabilities depends on many social, emotional, and physiologic factors, operating in combination with personal, school, and community demands or expectations.

A severe visual disability does not "bring on" all these complexities. However, a visual loss accentuates the complex human nature. One's ability to tolerate, to compensate, cannot be predicted. Generalities may provide a framework of

likely expectations about visual performance. They will not, however, lead to a clear cut appreciation of how a child is performing visual tasks. They may not shed any light on the teacher's responsibility for planning, and for instructional material development, with respect to full utilization of residual visual abilities.

Seeing an object

How a child "sees" an object depends on four factors: available light, the clarity of the object, distance of the eyes from it, and knowledge about it. These are the variables, most often in combination, which are manipulated by the teacher in order to provide the "best possible seeing experience" for a visually handicapped child with some residual vision. The kind and amount or adjustments needed are individual. One factor affecting such adjustment has to do with what impairment is involved.

Physical system in Seeing

These systems are presented to help the teacher understand the functional implications of eye, report forms written by physicians, and, most of all, to avoid unwarranted generalities about eye function in relation to eye conditions. Knowing about these systems can help in formulating tentative expectations for the progress of the child, bearing in mind data provided by the doctor and particularly, using the visual behaviour of the child.

The four systems are: the *motor* system (the involvement of eye muscles in the visual process): the *refractive* system (involving bending of light): the *transmission* system (of information to cortical levels, the neural paths to the brain) and, the *associative* system (putting the information together in some way so that what one sees is understood).

By acquiring an understanding of the ways in which each of these systems operate, both separately and together with other systems, one is more readily able to appreciate the complexity of the visual process, and, most of all, to be able to identify discontinuity between a given diagnosis and a child's visual behaviours. With such information, the educator is better prepared to develop realistic expectations, and realistic training plans involving the use of a child's residual vision. (This is important because a large number of even severely visually disabled persons have some residual vision.)

- *Motor system:* The motor system involves both the two intra-ocular muscles of each eye and the six paired extra-ocular muscles of each eye. A brief restatement of their functions may be helpful, as these muscles control two extremely important aspects of "seeing".

The intra-ocular muscles are the sphincter muscles dealing with the amount of light allowed to enter the eye (the iris muscle) and the ability to change the convexity of the lens for near and distance vision (ciliary muscle). The intra-ocular muscles are responsible for *focus*.

The extra-ocular muscle pairs of the eye pull the eye to the left or to the right; up, or down; up and out, up and in, down and out, and down and in. These positions are called the cardinal positions of *gaze*.

The critical early visual processes of gazing and focusing and of following with the eyes working together, (binocular visual tracking) are dependent on muscle (motor) control. Infants vary in their ability to perform these two essential tasks. Any impairment interfering with their smooth performance will affect the extent to which a child can change visual distances, or be able to direct both eyes together towards a given object.

- *Refractive system:* The word refract means "to bend light". The four structures of the eye which perform this task are all transparent, but some are more dense than others. These media are the *cornea, lens, aqueous* medium, and *vitreous* medium. Light from a wide range will enter the eye and eventually be bent so as to converge on the surface of the retina.

The amount of light bending, or refracting, depends on three factors: the angle of incidence – where the straight line of light strikes against a surface, to begin its passage through the medium; the nature of the medium, such as water; and the angle of emergence, that is, the angle of the light ray as it moves out of the medium. These three factors vary with each eye, even between the two eyes of one person, and, among all people. The curvature of one's cornea, and the constantly changing curvature of the lens, the distance between each of these structures, and the clarity of the fluids in each eye determine the amount and direction of refraction that occurs.

Many difficulties can arise in the refractive system. Severe problems such as corneal opacities, vitamin deficiency, inflammation and permanent damage from pterygium, congenital glaucoma, scarring from trachoma, can interfere with the passage and consequent bending of light. The aqueous medium may be filled with blood (or other exudates), as a result of eye accidents. A child can be born without a lens, or with crystalisation of cells of the lens (cataracts) interfering with the passage of light. These can grow to a point where no light can pass into the retina. The vitreous medium can be punctured, along with the retina, interrupting the passage of light.

For most people, the minor individual variations in the curvature of the cornea and the diminishing accommodative capacity of the lens, can be overcome with eye glasses, which, of course, are not "medicine" but rather "corrective appliances".

For those visually disabled children whose serious problems are related to the refractive media, the solution is more complex, if at all available. Contact lenses may help eyes with vastly irregular corneal surfaces; regular spectacles can likewise correct for the problem called "astigmatism". Problems of cloudy, or blood saturated aqueous medium frequently respond to medication and rest. Cataracts can sometimes be reduced, or the lens altogether removed with a compensating lens placed to do its work. A seriously defective vitreous medium is usually associated with other even more significant structural defects.

- *Transmission system:* As light rays fall upon the retina, they are converted to photo-chemical stimuli. These stimuli are then signaled

through the optic nerve. Parts of the nerve fibres from each eye cross over, joining with a portion from the opposite eye. This crossing provides the basis for two-sided cortical storage or utilisation of sensory information. The nerve network provides the path through which all the visual sensations are brought to the part of the brain where intellectual activity makes sense from it.

A person may have optic nerve atrophy. A child may experience lack of oxygen during the birth process, or develop a tumour of the pituitary gland, putting pressure on the nerve. Any of these things, and more, can affect transmission to cortical levels. Because damage to this system of the visual process is inaccessible other than through inspection of the retina by trained medical personnel, many problems are only speculatively diagnosed. This tends to create an aura of mystery for those working with children whose eyes appear normal, but yet who cannot see. It cannot be expected that every child with a severe visual problem has disfigured eyes, or necessarily show effects of a disease process. Their eyes may be perfectly beautiful. Regardless, it is possible that something is wrong with the system which transmits to cortical levels.

There is considerable uncertainty about what has been called "birth injury," or "brain damage", because of the structural complexity of the brain. Such diagnoses should not lead to any generalisations, but it should be recognized that the transmission system, like the others mentioned, may be damaged in isolation or as part of a more encompassing visual disability.

- *Association system:* This system has most to do with the processes of the brain. Each person is highly individual with respect to how slowly or rapidly learning takes place, how strong or weak motivation to learn is, and what experiences are provided as the basis for learning.

There is an enormous natural range of human differences. If a child has more things which the child can associate, the child will appear cleverer than another. We hear people say, "Oh, that child is so quick" or "She ... so slow". What do we mean? This is related to the speed at which a child builds up associations. The differences are compounded by both the quality and quantity of meaningful experience.

If a visually disabled child has residual vision, and is encouraged to use it, the child has a greater basis for forming concepts.

Evidence of a child "associating" sensory information with reality to increase concepts may be obtained from social, motor, linguistic, intellectual, and adaptive behaviours and how they are improved over time.

A child may have deficient ocular muscles, inadequate refraction, and/or reduced or distorted ability to transmit to cortical levels. However, if the cortex is intact and functioning well, whatever visual information the child can acquire, can be used as a basis for partial, or fragmentary associations. Even though imperfect, these associations can be clarified, practiced, and refined, so that in due course, the child can learn to use, as efficiently as possible, the vision which remains.

A child may have good musculature, refraction, and transmission to cortical levels, but may appear to have difficulty in making useful associations. The nature of the teaching task is different in this case.

It is important to concentrate on understanding the four systems of the process of seeing. From the physician's diagnostic information, and, especially, based on observations of the child's behaviour, the system or systems of the vision process that malfunction must be identified. Many severely visually impaired children have some sort of useful vision, even if is only awareness of shadows. Think how useful shadows can be in travelling across the school grounds on a sunny afternoon. Obstacles, edges of buildings, roof-tops or overhangs, the limbs or trees can all be "seen". When this information is associated with the physical reality of that environment, and that information is applied in daily practice, considerable speed and efficiency can be built up in moving about independently in that environment.

Exemplar (C)

INVOLVING PARENTS IN THE EDUCATIONAL PROGRAMMES FOR VISUALLY DISABLED CHILDREN

1. Objectives

After carrying out the activities specified here, the reader is expected to achieve the following objectives.

i. State the need for parental involvement in the educational programmes for visually disabled children.

ii. Explain how stereotype attitudes are formed about blindness.

iii. Describe in what areas parents could be of help for visually disabled children at home.

iv. Specify the specific role the parents could play in the educational programmes.

v. State the auxiliary services in the education of the visually disabled where parents could be of help.

2. Activities

(a) Reading material
(appropriate reference material)

(b) Completion of the worksheet

(c) Group work in "Nature of orientation programmes necessary for parents of visually disabled girls"

(d) *Individual assignment:*

Prepare a case history of a visually disabled child, highlighting the parent-school involvement.

Blindness, in general, evokes the emotional sympathy of the public. Blindness has impact in a variety of ways on the education, physical independence, emotional stability, intellectual and social development of a person. As experienced by many visually disabled people all the world over, the negative attitude of the public towards the blind is harder to bear than blindness itself. Normal people in daily life have limited contact with visually handicapped persons. Their opinion regarding the life of a blind person is mostly stereotyped. The people carry the attitude which they develop with limited exposure to one or two visually handicapped people, which they generalise to the entire population of the blind. Common stereotype attitudes are "the blind are beggers", "blind people have more

concentration", "all blind people are musicians", "blind people have God-given abilities". There are very few people who truly regard visually disabled people as individuals. These stereotype attitudes are directly related to family acceptance or rejection of a visually handicapped person.

Another important factor related to family attitudes is the social stigma about blindness. Treating blindness as a "punishment for a sin", for example, forces the family to feel guilty and hide this "evidence of sin" from the public, resulting in virtual neglect of the blind child. Some parents feel that the family transactions such as marriage for other members of the family, or even the prestige of the family itself, would be affected, if the visually disabled child of the family is exposed to the public, again resulting in isolating the child from developmental experiences.

Need for parent involvement

Parents are the most important people in the lives of the sighted child, and they are no less important to the child who is visually disabled. The family is the foremost non-formal agency in the rehabilitation process of visually disabled individuals. The habilitation or rehabilitation of the visually disabled should, in fact, start in the family.

The very nature of blindness makes parents ignorant about its implications on the development of the child.

By having a visually disabled child, the emotional shock of the parents takes time to be overcome. Dejected parents have little faith in the child acquiring independence. They do not sustain prolonged efforts for the development of skills of the child. Results of interventions for the visually disabled child are not seen immediately, and parents lose faith even further. Unawareness of the implications of blindness on the development of the visually disabled child, is determental to the provision of appropriate services at appropriate times. Yet visually disabled children need intervention services at the right time. Absence of timely interventions retards them further, and the retardation is difficult to be remedied at a later stage. Poverty also reduces the developmental opportunities for the visually disabled children. Poor families often do not have the human and other resources and time to take adequate care of the disabled.

Factors such as the above, result in a wide gap between the school and the family of the visually disabled child. Efforts for the development of the child become one-sided. Bridging this gap develops a good educational climate as well as rich social experiences for the visually disabled child.

Parents can play a significant role in the life processes of the non-seeing child. However, being unaware of the right methodologies for the treatment of such children, prevents parents from providing possible assistance. The new upsurge of concern for the disabled, makes it timely that the schools and organisations working for the visually disabled, offer guidance and counselling programmes to the families of the disabled children. The parents of these children should be involved in planning the educational programmes for visually disabled children at

the level of the school. In so doing, the parents would be able to appreciate their role in assisting the child for total habilitation or rehabilitation.

How can parents help visually disabled children in overcoming ir deprivations?

Good teachers of visually diabled children start readiness activities before teaching a skill to the child. Sometimes these may take six months, one year, or even two years, depending upon the abilities of the child and the skills involved. As children grow older, they may find it more difficult to acquire these pre-requisite skills. Further, much time is wasted in undoing many unwanted behaviours which have already been acquired by the child. If parents of visually disabled children understand this and co-operate with the teachers, the natural development of the blind child would not be far from the seeing child.

The list given below describes the kinds of activities that parents may attempt with their visually disabled children.

i. Like normal children, the visually disabled child also needs love and warmth of the parents. If, from the child's early years, the parents are dejected, experiences for the child are denied. Though the child may not realise the loss immediately, the long-term effects of these denials are serious. Parents should be oriented by the teachers to have optimistic views about the development of the child. This very feeling helps the child to maintain emotional stability during schooling. Parents should talk normally and freely to the child, and help the child to gradually develop the capacity to express thoughts, ideas and emotions verbally.

ii. Tactile and auditory discriminations have great relevance to the education of the visually disabled child. Parents should be appraised of the importance of these skills for the education of the child. This orientation need not wait until the child is admitted to the school. The parents can allow the child to explore objects in the home environment. The child should be encouraged to comprehend the likenesses and differences. The child should be allowed to touch and feel objects. Through auditory clues, the child should be made to discriminate among sounds and associate words or objects or activities with such sounds. This development would help the child to fare better in orientation skills.

iii. The family members can orient the child to the environment. The orientation should start in the home. The child should be made aware of the different locations of objects inside the house. The child will be able to develop a mental picture and move freely without much dependence. Parents and family members have to be convinced that this would assist the child to have better concepts regarding the position, direction and distance. If these skills have been developed at home, the teacher can immediately use such aids as tactile maps for teaching the child in school.

iv. Daily living skills ought to be taught by the family. The learning at home is natural, while the teaching by the teacher is in a simulated

environment, and hence artificial and less motivating. Often parents naturally hesitate to permit visually handicapped children to use electrical appliances, fire and others which they consider dangerous for the child. However, without these experiences, the life of the child would be incomplete. Parents have to provide guidance to the child to develop such skills. Girls would need to be exposed to culturally specified household activities. This kind of learning best takes place in the natural rhythms of life in the house, and the mother is the best teacher to teach these skills.

v. The adjustment of the visually disabled child to society starts with the child's ability to adjust to family members. The child brought up with affection and care in a "least restrictive" environment would be able to cope better with the "sighted world". This practice at home makes the child behave better in the society too. The individuals who have had frustrating life experiences at home find themselves emotionally unstable when moving with other people. The family makes a profound contribution to shaping social integration of the child.

Involving parents in the educational programmes

i. *Acceptance of responsibility:* Education begins in the cradle, and continues through life. It is broader, deeper and richer than "academic" training. Parents have to play a significant role in the educational programmes for visually disabled children. They should participate in it materially as well as socially, through a sense of joint responsibilities with the school in the development of the child. Misconceptions, such as the following, prevent parents from making their full contributions to the development of the child and from taking shared responsibility. These misconceptions, hence, have to be removed through appropriate educational programmes for the parents.

- Parents often think that the visually disabled child will not be a productive member of the family and therefore is a liability. This generates in them a feeling that the investment on the visually disabled child would go waste.

- A frequent characteristic among parents of visually disabled children is to expect everything free. It is true that visually handicapped people should be assisted to get all possible help from various agencies. At the same time, the contribution of the parents should also be expected for the education of the child. Their contribution in terms of money towards the education of the child may be very little. But there should be something. Failing in this may retard the natural development of educational programmes and may bring a lacuna between home and school.

ii. *Parent-Teacher interaction:* Teacher-parent consultations in the education of the visually disabled have to be greatly increased. Action meetings with parents should be conducted frequently in every programme. The parents

should be encouraged to attend these meetings. Due acknowledgement and recognition must be given to them for their participation. These meetings may be used to discuss issues such as the following:

- the development characteristics of the visually disabled and the concepts and comments of the parents;
- the teachers' appraisal of the potentialities of the visually disabled child and the role of the parents and other siblings of the family in developing these potentialities;
- the kinds and extents of realistic expectations parents may have in regard to their disabled children at various ages of the children.

All parents of visually disabled children should be oriented to the educational and other implications of blindness. They need to be associated with the teachers in planning the skills development programmes for their children. Most of the basic skills can be developed by the parents in the home, with the guidance of the teachers. In the case of a child who is proceeding into academic studies, one member of the family may be encouraged to learn braille in order to assist the child.

Such parent interaction sessions, however, should not be confined to parents of the disabled children. Parents of other children in these schools have also to be involved for improving their comprehensions of the integrated education programme. Parents of sighted children may be asked to observe the activities performed by visually disabled children and the comradeship developed between them and the sighted children.

The Parents-Teachers Association has to become a vital social agency. The parents of both sighted and visually disabled children can become the agents for changing the attitudes of the public towards blindness.

iii. *Auxiliary services:*

There are very few areas in the education of visually disabled children where the services of parents cannot be utilised.

The following list of possible services illustrates some of the types of inputs parents could provide:

- serve as counsellors;
- help the teachers identify visually disabled children in the villages, for school placement;
- act as educational para-professionals, especially in non-academic areas;
- act as social agents in working with the Government agencies for claiming the rights for visually disabled children;
- convince employers to employ visually disabled people;

- describe the accomplishments and achievements of visualiy disabled children as well as their problems, through mass media, for educating the public;
- explain the problems the visually disabled children encounter at home, so that teacher training programmes can expose the trainees to these problems and make them better teachers.

The personality of the visually disabled child will be more strongly influenced by the quality of the devotion of parents to that child than by the reaction of schoolmates. It makes a great difference to the child whether the attitudes and actions of parents reflect consideration for the child's real needs or are merely prompted by pity or momentary irritations.

It is reassuring to know that assistance with true affection will compensate greatly for the disabilities of the child. Teachers with their professional background are aware of this fact, but parents may be ignorant of this. This gap can be bridged by establishing co-ordination between home and school. In doing so, the visually disabled child is directed to the means for acquiring successful living skills.

Worksheet : *Involving Parents in Planning Educational Programmes for Visually Disabled Children*

1. Parents of visually disabled children may be involved in the school programmes in the following ways:

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2. In a Parents' Teachers Association meeting of the Integrated School, the following issues pertaining to the education of the visually disabled should be highlighted:

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Self Check Sheet : *Involving Parents in Planning Educational Programmes for Visually Disabled Children*

Following are the questions based on the reading material. Read the question and tick (√) against the alternative which you consider to be the right choice.

I. 1. 'Blind people have mor concentration'–

(a) This is a stereo type attitude.

(b) This is not at all times.

(c) This is true.

2. Some parents hide and overprotect the visually disabled child because:

(a) they do not have facilities to educate the child at home.

(b) they think that the family prestige would be affected by exposing the child.

(c) they try to develop the independence of the child in that way by protecting the child from harm.

3. Most of the possible experiences for the visually disabled child to acquire skills at home are denied because:

(a) the parents do not want them to have such experiences.

(b) the parents are not aware of the ways to provide opportunities for the child.

(c) the visually disabled child cannot acquire these skills.

4. Normally, visually disabled children from affluent families are

(a) neglected.

(b) overprotected.

(c) very well exposed to the society.

II. In light of the reading material, list six pre-requisite skills that can be developed by parents at home

1. .....

2. .....

3. .....

4. .....

5. .....

6. .....

III. In light of the reading material, list two activities for establishing co-operation with parents for the integrated educational programme.

1. .....

2. .....

IV. If you were a parent of a visually disabled child, state five objections you would raise against co-operating with the integrated education programme.

1. .....

2. .....

3. .....

4. .....

5. .....

V. For any three of these objections (IV) above, state what arguments you would use to counter them.

1. .....
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2. .....
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3. .....
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Exemplar (D)

PRE-REQUISITE SKILLS FOR LANGUAGE ARTS FOR VISUALLY HANDICAPPED CHILDREN

The study of language arts for visually handicapped children covers listening, speaking, reading and writing skills, just as it does with sighted children. Not being sighted, and therefore not being able to see print, a new medium for reading and writing is needed for children with visual disabilities. Braille is the medium used for these purposes. It is based upon tactile skills of the child.

As with the normal child, the visually disabled child requires a variety of auditory discrimination skills for language learning and use.

Reading and writing based upon tactile skills need to start when the child exhibits readiness for general learning. However, since the child is to use a tactile medium (braille) for reading and writing, a number of readiness skills such as the following are required:

- Braille consists of dots embossed above the surface of the paper, which the child has to feel. Not only must the dots be felt, but the patterns they form have also to be recognised. Hence, prior to introducing braille, the child has to develop a variety of tactile discriminations which will prepare the child to discriminate among dots and their patterns when learning braille. Tactile discrimination activities often done at pre-school for sighted children, through enjoyable play activities, can also be done for the visually disabled child.

- Both for using books, for basic language development, and for general orientation in the environment, the visually disabled child requires a num of ideas in regard to positions in space, such as left and right, top and bottom, above and below, inside and outside. These ideas are also essential for, and are provided to sighted children, from pre-school age, through a variety of play activities. The visually disabled child, too, requires these types of activities, specially designed to accommodate the fact that the child cannot see. So the games have to be based on hearing and feeling.

- It is very likely that the visually disabled child has not come in contact with books. Braille work is commonly in book form, consisting of sheets of paper which are the pages, as in any book for the sighted. So the child has t have intimate acquaintance with what a book is, its shape; its front and back, which would indicate where to start the book and where the book ends; and the top and bottom and the left and right of a page, which also indicate where the writing begins and ends on the page. The child must know, as well as a sighted pre-school child, the turning of a page. Further, the child has to learn how to identify

the right page required in a book, and indeed how to identify a required book.

Without ensuring that these basic pre-requisite competencies have been acquired by the child, plunging into teaching braille, has caused serious difficulties and confusions for the child.

In order to develop the concept of the top of the braille sheet for a new entrant to the school, it is often helpful to clip the right hand top corner of the sheet. The young child should be oriented that the clipped corner is the right hand top corner of the paper. When the papers are bound with a small metal or plastic ring, the child should be oriented that the rings which are found in the bound book always indicate the left side of the book and when the rings are at the left side, and the clipped corner is at the right hand top corner, it is the front side of the book. The book can be covered with different kinds of fabrics or papers so that by texture, the visually disabled child could get an idea whether or not the right book is being chosen. These types of assistance make the visually disabled child to have better knowledge about the handling of the book.

- When teaching braille starts, positioning the hand is significant. Children position their hands for braille in many ways.

Some use the two index fingers as the major source of reading, some children use three fingers for reading, some use the right index finger only, and some use the left index finger only. The best Braille readers are ones who can use both their hands for reading the Braille dots. Because of this, children may be encouraged to use both their hands for reading. As with scanning with the eye, by sighted children, when reading a book, the movement of the hand across the page has to be smooth and from left to right (or some other convention for reading). Adhoc movements in both cases cause inefficiency in reading, and fatigue and strain.

In the beginning, punch all the six dots of the Braille cell and let the child move the hand freely and smoothly on the line. To make it less confusing, the teacher can Braille every third line, so that there is a wide spacing between lines.

- There are other verbal ideas required for language learning as well as for good spatial orientation and mobility, as with sighted children. Examples of these are comparative terms like big/little, thin/fat; tall/short. The child with visual disabilities has generally had few, if any, of the experiences that would help the child comprehend these ideas. The sighted children, in both class-room and environmental situations, are used to these experiences.

- No one questions the importance of listening skills for the sighted child. For the child with visual disabilities, the ear and its proper use are vital. Starting with being able to discriminate various sounds from real life, leading on to sounds made by the teacher, and leading further on to sounds made by the teacher and classmates, the child has to progress to the development of a vocabulary for speech. Again the same basic techniques used for the sighted child to develop listening skills may be

utiiized for the child with visual disabilities, with the condition that since this child cannot see, the brain must receive messages from the other senses to help the child comprehend what is heard, especially in the case of vocabulary. A sighted child can see a chair and hear the sound "chair" and have some comprehension of what "chair" means. To the visually disabled child, just the sound "chair" is only a sound. Its meaning can come from direct contact with a chair.

It is well known that like other senses, the hearing sense does not develop automatically. Since this sense is vital to the visually disabled child, special efforts have to be made to improve the child's listening skills. This is because:

- the visually disabled child has to rely upon sounds to a great extent. Whether or not the child is being educated in school, hearing development has to be emphasised for the child's basic understanding of the world;
- In education too, the child has to depend upon listening skills to a great extent. It is not possible to provide visually disabled children with Brailled reading material for every aspect. It may not even be advisable, due to the slow pace and fatigue aspects of braille reading. The children proceeding to higher levels of education have to learn to use *reader and recording services.* Unless listening skills are developed adequately, the child may not retain interest in this vital medium and therefore will not be able to make use of the opportunities for higher learning.
- The foremost need of this skill is for the mobility of the child. Many of the independent mobility techniques depend upon the child's ability to use sound clues.

Varied activities can motivate the visually disabled children to develop listening skills. The training should start right from the pre-school level. The different phases of the training may be classified as follows:

- Sound localisation skills
- Sound discrimination skills (likeness & differences)
- Sound tracking
- Associating objects and sounds
- Auditory background and selection of the needed sound source
- Development of auditory tolerance (which determines the number of sounds which could be discriminated and understood by the child at a time)
- Skill of sequencing the sound clues.
- Reconstructing life situations through auditory clues.

Gradual development in the above skills enable the child to improve vocabulary. Any activity, in the classroom, or outside, or in the laboratory, or at home, which develops the above skills, needs to be encouraged. As the teaching of these skills is not difficult, and can usually take the form of games, the family of the child needs to be strongly encouraged to be involved in listening skill development of the child.

As the language arts skills of the child improve, the competencies may be assessed at least at three different stages, as indicated below:

- The ability of the child to grasp the information, which is of contact or physical kind with assistance from the teacher.
- After this, instead of the teacher giving physical assistance, the child must be made to perform through only verbal assistance. The competency level of the child needs to be evaluated at this stage as the efficiency of the child at this stage influences orally independent behaviour.
- At the third stage the independent performance of the child without the physical or verbal assistance of the teacher should be assessed On the basis of the competency of the child at this stage, remedial, and/or follow-up instructions may be planned, preferably on an individual basis.

The importance of skills in language arts merits a special effort by the teacher in monitoring the progress of a child with visual disabilities. The following check list may assist in this:

LANGUAGE DEVELOPMENT

Name:

Standard:

Developmental level/ Skill level	Competence 1. Phy. Ast.	2. Ver. Ast.	3. Ind. Beh.	Com-ment	Date
General readiness					
Physical					
Cognitive					
Language ability					
Social Behaviour					
Reading Readiness					
Braille Mechanics					
Turning pages					
Positional concepts					
Interest in reading					
Vocabulary development					
Use of marking systems					
Reading					
Reading for detail					
Reading for general information					
Independent word-attack skills (synthesis/analysis)					
Reading for enrichment					
Reading for recreation					
Oral reading					
Silent reading comprehension					
Handles format shifts in examination reading					
Writing					
Use of writing frame and stylus					
Self-correction					
Use of writing board					
Note taking					
Composition/poetry format					
Listening					
Discriminating listening in class					
Use of live readers					
Use of recorded material					

1. Physical Assistance (Phy Ast)
2. Verbal assistance (Ver Ast)
3. Independent behaviour (Ind Beh)

Chapter Five

SEMINAR AND WORKSHOP RECOMMENDATIONS AND SUGGESTIONS

The recommendations emerging from the Seminar and Workshop are presented below in two sections. The first section covers recommendations relating to National Governments, while the second section covers recommendations relating to UNESCO. In regard to the latter, UNESCO may use its good offices in associating with UNICEF and other concerned agencies for relevant action.

(a) For Member Countries

i) The Seminar and Workshop recommends that Member Countries formulate definite policies on planning and implementation of mass scale educational services to the disabled, with the same commitment and determination as has been done in the case of universalization of the first level of education. Legislative support was considered preferable by the Seminar.

ii) Services to the disabled, being the responsibility of several departments (Ministry of Education, Social Welfare, Health etc.) the Seminar and Workshop recommends that the Member Countries develop functional mechanisms for inter-departmental co-ordination at different levels. It is also suggested that intra-department co-ordination when more than one section deals with educational services for the disabled, be ensured. The Seminar and Workshop felt the need for a National Committee/Advisory Council, set-up for overseeing the planning and implementation of educational services for the disabled and for speeding up the progress of implementation.

iii) The Seminar and Workshop recommends readiness programmes for improving educability of the disabled children and suggests that pre-schooling facilities for the disabled be expanded in the member countries in association with the current national expansion of pre-school education.

iv) Considering the magnitude of the problem, nature of the existing tasks involved, and constraints in resources, the Seminar and Workshop suggests that the educational services to the disabled be extended through governmental and non-governmental agency partnership, within defined national objectives and programmes for the development of special education, and that the Government extends the services to disabled by working together with non-government agencies.

v) Considering the importance of the data base for planning educational services to the disabled, the Seminar and Workshop recommends that

Member Countries establish a permanent national unit for continuous monitoring and evaluation of the educational services to the disabled. The unit should be given the responsibility to collect periodic statistics and make estimates on the basis of surveys conducted by itself and other agencies.

vi) The provision of resources for education being limited in the Member Countries, the Seminar and Workshop recommends that resource mobilization specifically for educational services to the disabled be undertaken, including the community as a whole.

vii) The Seminar and Workshop recommends that mass educational services for the disabled be developed through provision for special education in regular schools as the basis for nation-wide outreach.

viii) Realising the conspicuous absence of facilities for educational services for the disabled in rural areas where the majority of the disabled live, the Seminar and Workshop recommends that priority be given for developing and extending such services in these areas.

ix) The Seminar and Workshop recommends fuller utilization of the existing special schools for their expertise; enhancement of learning opportunities at these schools for the disabled to integrate better into society; and opening of new special schools only in places wherever it is considered essential, in terms of the intensity and sophistication of services required for the disabled.

x) Considering the dearth of instructional and other materials, both for training personnel and for the children, the Seminar and Workshop recommends that the member countries undertake the development and production of such materials on a priority basis, utilizing the existing structures, augmenting them wherever necessary. Large scale production and distribution facilities would also need to be established to meet the necessities of mass implementation of educational services to the disabled.

xi) Trained manpower being crucial to the success of mass educational services to the disabled, the Seminar and Workshop recommends that the member countries develop both pre-service and in-service courses for mass implementation of special education with the regular school as the nucleus. The training should be developed as a service of high quality short-term courses coupled with continuous on-site staff development input.

xii) Education of the disabled in an indigeous context and integration in regular schools as the major strategy for implementation being relatively new areas of work, considerable research and experimentation are required. The Seminar and Workshop recommends sponsoring and supporting development oriented foundational and operational research in special education.

xiii) The Seminar and Workshop recommends that the planning of mass educational services for the disabled be undertaken at the macro level as well as at the decentralized levels following composite area planning.

xiv) Aids and equipment are essential for learning by the disabled, particularly by the children having sensory defects. The Seminar and Workshop recommends that the Member Countries sponsor programmes for developing low cost indegenous aids and equipment. It should also be ensured that these reach the users in time and in the required quantity and quality. Provision has also to be made for their regular maintenance and repair.

(b) For International Agencies

Being a new area of work, the Seminar felt that International Agencies like UNESCO and UNICEF have to play an important role in generating programmes in enhancing the capacity of countries for mass implementation of educational services for the disabled in the region. The Seminar and Workshop therefore made the following recommendations.

i) UNESCO may document the experiences of different countries developing educational services for the disabled on a mass scale and provide opportunities for inter-country exchange of experiences so that first hand interactions may help in acquiring new perspectives which can be helpful in planning and implementing country specific programmes more effectively.

ii) UNESCO may arrange consultancy services for the development of educational services for the disabled in countries of the Region. The consultancy may be provided as far as possible from within the Region, as this expertise will be more relevant in the context of the Member Countries.

iii) UNESCO may provide fellowships for the training of national staff through short and long-term training at institutions and through attachments to relevant projects in countries of the Region, so that they would be in a position to generate programmes of education for the disabled and train other national personnel. Such training programmes should have built-in multiplier effects for developing national trained manpower for the mass implementation of the educational services for the disabled.

iv) Some projects for promoting innovative experiments in education of the disabled may be sponsored by UNESCO for developing new designs for learning and teaching strategies. Co-operative projects with Regional and Sub-regional groupings of the Member Countries may be planned.

v) UNESCO may provide support for national programmes of development of instructional materials both for the training of teachers as well as for learning by the disabled children, by way of providing printing paper and other technical and organizational support.

vi) For the development of training facilities for the mass implementation of educational services for the disabled training material and equipment are required in large quantity. UNESCO/UNICEF may augment and strengthen the capability of regular school teachers and support specialist staff.

vii) The educational services for the disabled requires aids and equipment for overcoming the handicapping effects of the disability. The countries of the Region have the capability to produce some of the materials and equipment. It will be cost-effective if the Member Countries produce such materials on an inter-country co-operative basis. Modalities for such an enterprise may be worked out under the sponsorship agencies of relevant international agencies.

viii) The expansion of the educational services for the disabled requires sizeable resources. International agencies like UNICEF and other funding agencies may support the national effort for funding of this sector of education.

Annex I

AGENDA

1. Opening Ceremony
2. Election of Office Bearers

Seminar

3. Current experiences in the mass implementation of educational services for the disabled.
4. Planning measures to be taken for mass implementation of educational services for the disabled (priorities, strategies, curriculum aspects, supervision, personnel training, infrastructures, special incentives).

Workshop

5. Development of criteria for designing a Handbook for Training Teachers of the Blind.
6. Development of topics and content scope for a Handbook for Training Teachers of the Blind.
7. Development of exemplar units and identification of support materials for a Handbook for Training Teachers of the Blind.

Annex 2

LIST OF PARTICIPANTS

China	(Not represented, but submitted Country Case Report)
India	Dr. (Mrs.) Sudesh Mukhopadhyay Lecturer, NCERT Sri Aurobindo Marg New Delhi.
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Ratnaike, J.
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Appendix I

Presidential Address of Sri T.S. Avinashilingam, Founder-Director, Sri Ramakrishna Mission Vidyalaya, Coimbatore 641 020 at the Regional Planning Seminar and Workshop on Special Education for Asian Countries held at Sri Ramakrishna Mission Vidyalaya, Coimbatore 641 020 at 9.00 a.m. on Monday, August 12, 1985

It is said that there are about 500 million disabled people in the world. The disabled are various kinds, the orthopaedically handicapped, the deaf and dumb, and the visually handicapped. Experience and research have proved that given proper training and education suited to their needs, their personalities and usefulness to society can be developed, if society approaches them with sympathy and understanding. Recently a lame man conquered one of the highest peaks in the Himalayas. Helen Keller with her great disabilities became a world figure inspiring thousands of people. Many blind people, like Surdas, were poets and musicians who continue to inspire thousands. This only shows that they have a potentiality – as Swami Vivekananda said, each is soul, is potentially divine, and the disabled are no exceptions. It is a good augury that the world – both the developing and developed countries, are increasingly aware of their duty to the disabled. This has received a great impetus after the United Nation's declaration of IYDP in 1981 which focussed attention on the duties of society towards their unfortunate brothers and sisters.

Through a long span of time, mankind has been subjected to a myth that the disabled are useless, incapable of doing anything on their own, a species to be pitied, and looked after so long as they are alive. The myth has now been broken. Every country and every community is now realising that the blind, the hearing handicapped or the crippled, can stand on their own if society cares to give them a chance. All the same, the prejudices persist in both developed and developing countries, although some of the advanced societies have forged ahead in providing short-term and long-term measures aimed at education, training and employment. What the disabled ask for today is for something more basic: the restoration of the basic human rights which they cease to enjoy because of mere physical or mental disability.

In India we have come a long way from the position obtaining before independence: the Employment Exchanges set-up exclusively for the physically handicapped have sought to place the disabled in variety of trades and vocations, while the Vocational Rehabilitation Centres have trained them in different trades according to their aptitudes and qualifications. Three per cent of certain categories of jobs, in both Government and Public Sector undertakings, is reserved for the disabled of different categories. The initiative has been taken by the Nationalised Banks, the Indian Railways, the Post & Telegraphs Department and several other organisations, in providing financial assistance and other avenues for the employment of the disabled. Today the Central Government as well as the State Govern-

ments, the public and private sectors, are seized of the problems of the disabled. We realise today that it is better to open up opportunities of employment to them than bear the large expenditure on their care that perpetuates their dependency. Self-reliance remains the motto of our National Plan of Action for the Disabled, formulated during the International Year of the Disabled Persons.

The 1983 International Labour Conference held at Geneva took a positive step further: it adopted an International Convention and Recommendation on Vocational Rehabilitation and Employment of Disabled Persons. By adopting the convention, which becomes binding on those Governments which ratify it, the ILO underlined the importance it attaches to the formulation and implementation of national policies in this field. Countries ratifying the Convention are obliged, within their possibilities, to ensure that the appropriate vocational rehabilitation measures are made available to all disabled persons and to promote opportunities for their employment in the open labour market.

A massive publicity drive needs to be mounted to focus on the tremendous potential that lies latent in the vast human resources labelled as disabled. Together with the mass media, the community at large, the voluntary sector, the workers, the employers, and on top of all, the leaders from the disabled themselves, should join together to formulate a blueprint for action that would ensure the sustained training and employment of the disabled in vocations where they could function as effectively as anyone else.

The Regional Seminar on Special Education and the Workshop with particular reference to Integrated Education of the Visually Handicapped at the Ramakrishna Mission Vidyalaya College of Education has been made possible through the co-operation of the UNESCO and the Government of India, Ministry of Education. The Vidyalaya College of Education has done considerable pioneering work in this field by starting for the first time M.Ed. and B.Ed. courses on Integrated Education of the Blind, followed by the Avinashilingam College of Education. The College is also running a Resource Centre for providing guidebooks and literature in Braille for children at elementary and secondary school stages. In this work it has been greatly supported by the Christoffel Blinden Mission. We are grateful to Sri P. Gnanadurai Michael, the Regional Representative of the Christoffel Blinden Mission for his warm understanding and support, and to Dr. Stanley E. Bourgeault of United States, the expert provided by the Mission for training our front-line workers in this field, namely Sri M.N.G. Mani and Selvi A. Premavathy. We must congratulate Dr. T.R. Soundararaja Rao, Principal, and his co-workers in the Ramakrishna Mission Vidyalaya College of Education and its Resource Centre, for their dedicated work in this field. I must also thank Sri T. N. Rajarathnam, Principal of the Vidyalaya Arts College and his co-workers, and its Secretary, Dr. K. Kulandaivel, who have made all arrangements for the Seminar, to Sri N. Krishnamurthi, Principal, of our Vidyalaya College of Physical Education and all the workers in the Vidyalaya and the Avinashilingam Home Science College for their help in organising the Seminar. Above all we must convey our heartfelt welcome and gratitude to Sri Ratnaike, Educational Adviser of the UNESCO, Sri N.K. Jangira of the NCERT, Government of India and the representatives from India, Sri Lanka,

Thailand, The Philippines, Vietnam and Indonesia for their kindly coming all the way to participate in the Seminar and make it a success.

I have now great pleasure in welcoming all of you to the Seminar and requesting Sri Ratnaike, Educational Adviser of the UNESCO, Bangkok to inaugurate the Seminar and Dr. Rajammal P. Devadas, Director, Avinashilingam Home Science College to open the Resource Centre.

Appendix II

Inaugural Address of Sri T.S. Avinashilingam, Founder-Director, Sri Ramakrishna Mission Vidyalaya, Coimbatore 20 in UNESCO Sponsored Workshop on Integrated Education of the Blind for the Asian Region, in the Sri Ramakrishna Mission Vidyalaya College of Education, Coimbatore 20.

The number of persons suffering from visual impairment is calculated at 9.5 millions. Of these, 4.5 millions are totally blind. Of these, it is estimated that 50 per cent can be cured by simple cataract operation and other steps. The clinical syndrome of Vitamin A deficiency, is the major cause of childhood blindness and contributes to about 20 per cent of all cases of blindness in India.

The high prevalence of Vitamin A deficiency among young children in India due to . poor nutritional status of the mother and restricted diet imposed in pregnancy, which leads to a low liver store of Vitamin A in infants at birth; avoidance of feeding breast milk to infants by some mothers thus depriving their infants of Vitamin A rich feeds; poor intake of Vitamin A by nursing mothers resulting in low Vitamin A concentration in breast milk; unsupplemented feeding for 9-12 months with no significant weaning food until over 18 months; poor intake of green vegetables; and infection and infestation.

The most rational and feasible method of control and prevention of Vitamin A deficiency in children and adults would be to improve their dietaries and ensure adequate intake of the Vitamin A. But the improvement of dietary intakes of Vitamin A implies an intensive programme of nutrition education. Till such time, this goal can be achieved, prevention can be carried out through massive dosage of Vitamin A. Expectant mothers may be given Vitamin A orally during the last trimester of pregnancy. Lactating mothers can also be given a massive dose of Vitamin A every 3 months during the first six months of breast feeding. Another approach is the addition of Vitamin A to foods, referred to as Vitamin A nutrification of food.

Dr. M.S. Swaminathan, the eminent Agricultural Scientist of India, fervently advocates the establishment of nutrition gardens in all our villages and in urban areas to eradicate several of the serious nutritional disorders. Thus the propagation of greens and papaya in the rural areas will lead to the greater consumption of these by the population at risk.

Experience the world over has proved that the adoption of the measures suggested above for prevention of blindness are possible through education, particularly of the mothers and generally all women in the family, about the right dietary prices, through the improvement of the economic status and purchasing capacity, through protected water supply, environmental sanitation and establishment of

kitchen gardens through which each family can get its own supply of protective foods.

Now the problem facing us is the evolving of a method of education which will give the best results to the visually handicapped and at the same time provide educational facilities to the thousands of blind children spread throughout the country, with minimum expenditure to the State.

You will be glad to know that the subject matter of our present workshop, namely *Integrated Education of the Blind* was discussed at a previous National Seminar held in the Sri Ramakrishna Mission Vidyalaya in March 1981, when the United Nations announced the International Year of the Disabled, in this very hall. Sri L.K. Advani, the then Adviser to the Government of India on Education of the Visually Handicapped and many others participated in it. I am glad Sri M.N.G. Mani, Sri P. Chanadurai Michael, Sri R. Chinnaswamy and others who participated in it are with us in this Seminar. In that Seminar Sri L.K. Advani said that biologists and psychologists have shown that 80 per cent of the child's personality and the child's brain are formed by the time of five years, and if we wish to develop warm feelings and spontaneous interaction between the blind and the sighted, the process must begin with early childhood and where can it be better, he asked than done in the ordinary schools where blind and sighted can play, eat and study and even fight with each other.

I cannot do better than placing before you the salient recommendations of that Seminar.

The main recommendations of the Seminar were:

That in developing programmes for integrating blind children in ordinary schools, a flexible approach should be adopted. The guiding factor should be the needs of every individual child.

It realises that in the past, the following 5 different plans have been adopted with considerable success in varying situations:

a) The resource room plan
b) The itinerant teacher plan
c) The combined plan
d) The co-operative plan and
*e) The partial integration plan**

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* *Explanation*

By the *resource room plan* is meant that the school should appoint a resource teacher for eight blind children. The teachers should have been trained in the education of the visually handicapped. The school also earmarks a single room measuring approximately 400 square feet in which are kept special equipment like braille kits, braille typewriters, ordinary typewriters, maps, thermoform machine, low vision aids and any other equipment that is considered essential for helping blind children overcome problems in the regular class-room.

Scales of Pay

A resource teacher working in any of the plans outlined should be given the same scale of pay as admissible to teachers with comparable qualifications. In addition, he should be given a special pay of not less than 10 per cent of his basic salary in view of his special qualifications and onerous responsibilities.

Resource Teacher to be a full member of the faculty and his qualification

Every resource and travelling teacher should be a full member of the faculty of the school in which he/she is based. He/She should be eligible for promotions and other benefits or career prospects for which ordinary teachers are eligible.

In the opinion of this Seminar Meat teaching of visually handicapped children is not fundamentally different from teaching ordinary children, though, it calls for certain specialised skills. In the circumstances, every resource teacher should possess the qualifications prescribed by the concerned State Government for primary or secondary teachers. In addition, he/she should possess a recognised degree, diploma, or certificate in the education of visually handicapped children. He/She should be eligible for special pay only after he/she acquires a specialised degree or diploma or certificate.

Teacher-pupil ratio

In the opinion of this Seminar, visually handicapped children need far greater individual attention than sighted children. In view of this the Workshop strongly recommends that one resource or travelling teacher should be provided for every 8 visually handicapped children integrated in an ordinary school.

By the *itinerant teacher plan*, we refer to an arrangement whereby a teacher trained in the education of the visually handicapped travels between several schools since no one school has enough visually handicapped children to justify the appointment of a whole time resource teacher. In such an arrangement, every participating school will need to have a room for keeping the necessary things needed for imparting education to the blind children.

In a *combined plan*, the trained teacher may spend a part of the time in the given school and rest travelling through one or more schools requiring his/her services. In a combined plan, the resource teacher may also call upon the services of other consultants like an Orientation and Mobility specialist, a Psychologist, a Social Worker and the like.

By the *Co-operative plan*, is meant that the visually handicapped children are not as yet ready to participate fully in the regular class-room. As a consequence, they are taught for most of the period in a separate room which is equipped in the same manner as a Resource room. However, even in a co-operative plan, the efforts are made to progressively transfer the visually handicapped child to the regular class-room and to encourage him to participate to the extent possible in extra-curricular and other activities of the school in conjunction with sighted children.

By *partial integration plan*, we refer to an arrangement whereby blind children may stay in a special residential school for the blind, but at a certain stage are sent to an ordinary school for their education. In such a case, the ordinary school does not always need to provide a resource room since the functions of the resource teacher are often performed by the special residential school. Even in such cases, having visually handicapped children requires the provision of a resource room and the services of a resource teacher.

Need for a resource room

In the opinion of this Workshop, it will be undesirable to have more than 2 visually handicapped children in a given class. A resource room should be established as soon as visually handicapped children are admitted into an ordinary school. However, if the number of visually handicapped children in a given school exceeds 16, a second resource room should be provided. In other words, no more than 16 visually handicapped children should use a single resource room since a resource teacher cannot handle more than 4 to 6 children in the resource room at any given time.

Examinations

a) In school examinations, visually handicapped children should be permitted to write their answers in braille. It should be the duty of the resource teacher to transcribe them into print, so that they can be evaluated by the regular class-room teacher. This Seminar recommends that Boards of Secondary Education and Universities should be persuaded:

i. to allow visually handicapped children to typewrite their answers whenever they wish to do so;

ii. to permit visually handicapped students to write their answers in braille by using a Brailler and allow them 50 per cent extra time as it takes more time to write in braille. It should be the responsibility of the Boards of Secondary Education and Universities to have these answers transcribed into print so that they may be evaluated by the proper examiners.

Physical Education

In the opinion of this Seminar, physical development is as important for visually handicapped children as it is for sighted children. Every integrated school should therefore take adequate steps to ensure that visually handicapped children are afforded a reasonable opportunity to participate in games and physical activities alongside sighted children. However, wherever this is not considered feasible, special arrangements should be made to afford visually handicapped children the opportunity to develop physically.

Reading materials

The Seminar is painfully aware of the great dearth of reading materials in Braille. It strongly feels that urgent steps have to be taken to accelerate the production of textbooks, maps and other wholesome reading materials in Braille for the use of visually handicapped children. As a step in this direction, the Government of India may be requested to obtain from appropriate international agencies good and modern duplicating machines which may be given to each State. The object is that at least one Braille production unit should start functioning in every State. In addition, the production of the various existing braille presses should be properly coordinated.

Enlarging machines

The Government of India should be requested to obtain from appropriate international agencies an adequate number of photocopying and enlarging machines to be given to each State. The object is to ensure that in each State one unit for producing materials in large print for low vision children starts functioning as early as possible.

Integrated Education Kits

Steps must be taken for the developing and distributing free of cost or at low cost an integrated education kit to all visually handicapped placed in integrated setttings.

Integration at the Pre-school stage

The Seminar is strongly of the view that integration of visually handicapped children should commence at the earliest possible stage in life. To start with, visually handicapped children may be integrated in balwadies, nursery schools and other pre-school institutions.

Apart from integrating visually handicapped children in these pre-school institutions, steps should also be taken to counsel parents about the techniques of caring for a visually handicapped child at home. Special attention should be paid to nutritional aspects of bringing up visually handicapped children.

Support services

Wherever such services already exist in a school, support services like school health inspection, psychological service and career counselling should be made available to visually handicapped children placed in the school.

Vocational Education

The industrial training institute, junior technical school or other similar institutes should all be obliged to admit visually handicapped students for training, if considered suitable by the appropriate agency of the State Government These institutes should appoint resource instructors.

Industrial training institutes and other similar institutions should offer to visually handicapped students regular courses as well as need based short-term courses designed to prepare them for specific jobs in the Government or public sector undertakings or in private industries. These courses should be designed in the light of the demands of the labour market, in every region.

Visually handicapped persons should be included in all programmes under TRYSEM (Training of Rural Youth for Self-Employment). Under this scheme, every effort should be made to offer facilities to visually handicapped youth for being trained in occupations in the unorganised sector.

In order to promote the placement of a large number of visually handicapped persons in various sectors of the economy, both in urban and rural areas, the Central

and State Governments should finance the appointment of specialist placement officers by approved voluntary agencies serving the blind.

In order to promote the employment of visually handicapped people, increasing use of technology should be made. Towards this end, the Government should formulate a scheme, whereby technological aids needed by the visually handicapped person to obtain or retain employment, should be provided to him free of cost loaned out to him through approved voluntary agencies, which should also provide facilities for maintenance.

Promote positive attitude amongst general community

This Seminar recommends that in conformity with the theme of the International Year of the Disabled Persons, Central and State Governments, voluntary agencies and others should promote positive attitudes towards the visually handicapped, largely through creating concrete situations in which the functional capacity of visually handicapped persons can be effectively shown. The mass media should also be extensively used to promote positive attitudes.

The Seminar recommends that refresher courses may be organised at various levels for teachers of the blind with a view to equipping them with skill, to improve the social functioning of the visually handicapped child and also to acquaint them with latest developments in various related disciplines throughout the world.

This Seminar congratulates the Sri Ramakrishna Mission Vidyalaya Teachers College for coming forward to start an M.Ed. Course for Integrated Education of the Blind. The Seminar recommends that in view of the urgency to train staff in integrated education of the blind, the Sri Ramakrishna Mission Vidyalaya Teachers College may organise short-term training courses of six to eight weeks' duration to teach Methodology of Integrated Education of the Blind to staff of schools who may introduce integrated education of the blind in their schools and staff of schools for the blind who are running separate courses.

I have no doubt that this Unesco Workshop will go deeper into the problems of Integrated Education of the Blind and also produce a Handbook for Teachers and other teaching aids, so that education of the visually handicapped will be fully integrated in all aspects of education to the great benefit of these children.