Chapter I

Education of the Visually Handicapped

Review of Literature
CHAPTER I

EDUCATION OF THE VISUALLY HANDICAPPED

REVIEW OF LITERATURE

1. What is Education:

UNESCO (1983) has provided the most comprehensive and appropriate definition of special education.

1.1 Special Education:

It is a form of education provided for those who are not achieving, or are not likely to achieve through regular educational provisions, the level of educational, social and other attainments appropriate to their age, and which has the aim of furthering their progress towards these levels. It includes integrated as well as residential school education.

Carter's Dictionary of Education as reported by Bernardino (1963) defines special education as "the education of the pupils who deviate so from the relatively homogeneous group of so-called 'normal' pupils that the standard curriculum needs and involves modification of the standard curriculum in content, method of instruction, and expected rate of progress to provide optimum educational opportunities for such people.

1.2 Integrated Education:

It refers to the measures taken to provide educational resources, within the regular educational system, for those children who need them. The aim of Integration is to avoid or reduce restrictions on any aspects of a child's development which might result from segregated education. To Kristiansen (1989), to be integrated means to be transferred from a segregated or isolated position to an ordinary environment, with the rights and obligations that are linked to it.

According to Namgayel (1985), integrated education refers to meaningful involvement of such youngsters into ongoing regular educational programme to whatever extent it is feasible and beneficial, in a given instance, with the ultimate goal being optimal academic and social as well as personal learning of each child.

Namgayel (1985) also points out that the word integrate / integrated is a Latin word, integratus / integrare, which means to make whole / renew from integer, untouched whole or entire. It means:

- to make whole or complete by adding or bringing together parts,
- to put together parts into a whole to unify,
- to give or indicate the whole, sum or total

Integration is also referred to as day school, common school, ordinary school, regular school, normal school, integrated school, standard school movement.
Education per se is generally defined on the basis of aims or objectives, while special education is defined on the basis of the educant and the mechanics or arrangement for his education. Special education has the same objective as regular education. There is improvement in the method, mode and system of imparting instructions as per the specific needs of the select target group.

Mainstreaming in the United States, Integration in the United Kingdom and India, normalization in Scandinavian countries, though differing in conceptual and operational nuances, have the common denominator of educating children with special needs, as far as possible, in regular schools (Jangira, 1986).

1.3 Goals of Education:

Both these modes of education - residential and Integrated, have the same goal of formal education of the disadvantaged groups. They, however, differ in the means of achieving the same. Residential education focuses at attainment of education through special schools, whereas Integrated education aims at providing education to disadvantaged children within the regular educational system.

According to Rogow (1988), the goal of education for handicapped children is the achievement of competence, which can take a variety of forms. One kind of competence is mastery over the physical environment, which includes movement, locomotion, mobility and manipulation of objects. Another is communication competence, the ability to understand, respond, and effectively represent one's needs, wants and ideas to other people. Special competence describes the capacity to adapt, adjust and function in society.

Lowenfeld (1950) formulates the aim of education of blind children as follows:

"Education must aim at giving a blind child knowledge of the realities around him, the confidence to cope with these realities, and the feeling that he is recognized and accepted as an individual in his own right."

Jangira (1986), however, defines special education as the process of making educational provisions to meet special educational needs of children which can not be met by the arrangements available in regular education. By implication, both education of the talented and education of the disabled come within the purview of special education.

To explain special education, Stein (1990) prefers the Greek term "pedagogy" which means "take a child by the hand and lead him into life". The greatest challenge is to lead children out of school and prepare them for life.

According to UNESCO (1983), pedagogy is the systematic set of rules, or science involved in special education. The French term "pedagogie speciale"; Spanish term "pedagogia especial"; and Russian term "pedagogika special'naja" cover all branches of the science of education dealing with the upbringing and education of atypical children (UNESCO, 1983). Pedagogy, thus covers all branches of education of all categories of disabled children and includes special as well as integrated education.
2. Models of Special Education:

2.1 Dunn Model:

*Dunn* (1973) as reported by *Blatt* (1980) suggests an inverted pyramid model to display 11 administrative plans in special education from the most integrated to the most segregated.

**FIGURE 1.1**

**DUNN PYRAMID MODEL OF EDUCATION**

Most Integrated plans 1 and 2

- **Plan 1**: Enrolled in a regular school only special education material and equipment only
- **Plan 2**: Enrolled in a regular school only special education material and equipment & special consultative services to regular teacher
- **Plan 3**: Enrolled in regular school only itinerant or school based special tutors
- **Plan 4**: Enrolled in regular school special resource room & resource teacher
- **Plan 5**: Instruction in regular school & part time special day class
- **Plan 6**: Instruction in regular school & special day class where enrolled
- **Plan 7**: Combination of regular & special day school
- **Plan 8**: Special day school
- **Plan 9**: Special residential school
- **Plan 10**: Hospital instructions
- **Plan 11**: Home-bound instructions

Most segregated plans 9, 10, 11

In the Indian context, and particularly in the case of visual disability, plans 10 and 11 which refer to hospital and home bound instructions may be completely ruled out.

Plan 1 refers to complete integration. As we go down the pyramid, the level of integration reduces and segregation increases. Plan 9 refers to complete segregation.

2.2 Conceptual Plan of Education

*Jangira* (1986) identifies three parameters of educational services to children with special needs:

- Learning deficits arising out of disability:
  - cognitive (C)
  - sensory (S)
  - emotional (E)
  - cognitive - sensory (CS)
  - sensory - emotional (SE)
  - cognitive - emotional (CE)
  - cognitive - sensory - emotional (CSE)
b. Degree of special education need:
- mild (M)
- moderate (Md)
- severe (Sv)

c. Nature of educational provisions:

P1 = ordinary class room without any support or adjustment
P2 = ordinary class room without any external academic support but adjustment of instructions in
- ordinary class room
P3 = ordinary class room with some support and adjustment of instructions
P4 = ordinary class room as a base but support and adjustment inside and outside classroom
P5 = special class as a base with limited participation in ordinary classroom with modified curriculum
P6 = special school only
P7 = education in hospital and home

Considering various possible combinations of these three parameters and various levels within these
parameters, Jangira (1986) presented a conceptual model of matching special needs to educational
provisions.

The three dimensional matching yields 147 combinations. Using logico-deductive approach, the
cognitive and emotional needs can be ignored in case of visually handicapped. Hence the only
special need is the sensory deficit.

Similarly, the severe category of disability can be ignored in context of integrated education as the
same should be covered under residential education. The moderate and mild disabilities can be
clubbed as less severe disabilities. In the context of integrated education of the visually handicapped,
only one degree of disability i.e. less severe disability, termed as visual disability may be considered.

Similarly in the terms of range of educational provisions, P1 which is the ordinary classroom without
any support and adjustment can be ruled out. P7 which is educating in hospital and home is not
relevant in the case of visual disability and can easily be ignored. This provision is more relevant for
the locomotor handicapped with restricted mobility.

Thus the relevant parameters are:

a. The learning deficit arising out of visual disability is sensory.
3. Status of Education of the Visually Handicapped in India

3.1 Acceptance in the Constitution:

'Right to education' is enshrined in Article 41 as a Directive Principle in the Constitution of India. The same article enshrines right to public assistance in the case of disablement. Education and welfare of the disabled has been granted constitutional status in India.

In India, education of the disabled was not accepted as a legitimate component of general education and continued to be treated a mere welfare activity for too long. It had to wait for four decades after independence to be recognized as a component of general education and to be included in the disadvantaged groups needing special attention under equal educational opportunities. (Jangira, 1989).

3.2 The National Policy on Education (1986):

For the first time the policy considered education for all as one of the cherished goals of national development. Universalization of primary education is a step towards realization of this goal. The policy recognizes that non-enrolment and drop-out of special groups of children is one of the major difficulties in the realization of this goal. One of the special groups, which has received inadequate
attention so far, is that of disabled children.

Outlining the steps for ensuring equal educational opportunities for the disabled, the national policy on education states that the objective should be "to integrate the physically and mentally handicapped with the general community as equal partners, to prepare them for normal growth and to enable them to face life with courage and confidence." It envisages that "wherever it is feasible, the education of children with motor handicaps and other mild handicaps will be common with that of others."

3.3 The Plan of Action (1986):

The plan of action also stresses that as residential education is very costly, it will be ensured that only those children whose needs cannot be met in the regular schools should be enrolled in the residential schools. Once they acquire communication skills and study skills, they will be integrated in the regular schools.

3.4 The Barul Islam Committee on Legislation for the Handicapped (1988):

The committee has included education of the disabled in the draft legislation. It mentions that the state shall endeavor to provide free and universal elementary education to physically and mentally handicapped children. The state shall also provide assistance to them for education and training at the secondary and higher levels.

The draft legislation also lays emphasis on integrated education. It proposes that the policy of the government should be to promote integration through "integrated education programme". At the same time, it also proposes promoting setting up of special schools through government and voluntary sectors for those in need of special education, in such a manner that handicapped children living in any part of the country should have access to such schools. The draft legislation even proposes that, if required, government may set up residential schools for those who are no longer supported by regular schools.

The draft legislation thus emphasizes integrated education and proposes that special education also be continued.

3.5 The Central Scheme of Integrated Education for Disabled Children:

The scheme (Annexure 10) purports to provide educational opportunities for disabled children in regular schools. A large number of state governments have already adopted the scheme. They have established administrative cells for monitoring the scheme. However, coverage of blind children under the scheme at present is negligible.

4. History of Education of the Visually Handicapped:

4.1 Residential Schools:

Stein (1990) traces the beginning of education of the blind to a letter written by Diderot during 1748 and published in a newspaper in Paris as "Letter about the blind for the use of those who can see". Dr. Diderot, a physician by profession had two blind friends who influenced his thinking.

It was only during 1784, that Mr. Valentin Huay established the first school for the blind in Paris. Mr. Louis Braille, a student of this school later on invented the embossed six dot system of reading and
writing, now popularly known as braille.

Frampton (1953), however, maintains that in the United States, groups of blind children were first taught in a residential school on 15 March, 1832 and in a public school (integrated education) on 17 September, 1900

4.1.1 First School in India: Soon the good news travelled abroad. Miss Annie Sharp, a missionary, founded the first school for the blind in India at Amritsar during 1887. For the first 16 years, it was carried on in the premises belonging to the Church of England Missionary Society. It was shifted to Dehradun during 1903, recently renamed the Sharp Memorial School for the Blind in the recognition of selfless services of its founder.

4.1.2 Palamcottah School: According to Haider (1943), the Palamcottah Blind School was founded by Miss A. J. Askwith, a missionary sent out by the Church Missionary Society. During 1943, this was the largest school in Asia with accommodation for 90 boys and 70 girls.

4.1.3 Calcutta Blind School: It was started in 1887 by an Indian Christian, Mr. Behari Shah. Halder (1943) reports that Mr. Shah had to hire his first pupil to give him his daily lessons, so that the might not a loser through giving up begging as a profession. In later years, Mr. Shah himself became blind from sympathetic opthalmia. During 1993-94, the school celebrated its first centenary.

4.1.4 Dadar School for the Blind: The American Mission School for the Blind was founded by Miss Anna Millard in the year of female in 1900 in Bombay (Halder, 1943). The mission transferred the management of the school to the Society for the Protection of Children in Western India for an experimental period of three years. It was then renamed Dadar School for the Blind.

4.1.4 Victoria Memorial School for the Blind: Dr. Nilkanthrai Chhatrapati, a medical professional established his first school at Ahmedabad in January, 1900 after he acquired blindness. He continued to run the school till he was invited to join as principal of the Victoria Memorial School for the Blind, founded in 1902 in Bombay. He brought down with him pupils and amalgamated his school with the newly founded one.

4.1.5 Mehsana School for the Blind was founded in 1915 by the Baroda state to educate the deaf and the blind.

4.1.6 Number of Schools for the Blind: According to Haider (1943), in 1941, there were altogether 37 schools, industrial establishments and homes for the blind in the country. While facilities were available for 2,119 persons, only 1,168 (male 1,052 + female 116) were availing themselves of such facilities. Thus the capacity utilization during 1941 was only 55 per cent which is true even today (Thaker, 1982)

According to Taylor and Taylor (1970), though in 1900, there were only six establishments for the blind, by 1947 there were about 50, and by 1961, a total of 94 schools and training centres were established providing training to about 4,000 persons. During 1970, there were more than 100 institutions providing for about 10,000 blind persons.

According to a survey conducted by the National Institute for the Visually Handicapped, Dehradun there are 190 schools for the blind in India. The total number of teachers in these schools is only 1,200 and total enrolment of children does not exceed 10,000 (Advani, 1989).
It is estimated by Advani (1989) that 1,27,000 visually impaired children in the age group of 5 - 14 years need educational facilities. About 7,000 children in the age group 0 - 4 years need early intervention including pre-school education facilities (National Sample Survey, 1985). Thus currently not more than 10 per cent visually handicapped children have an opportunity of going to special or regular schools.

4.2 Beginning of Integrated Education:

The Scottish Education Act, 1872 made provision for the education of the blind along with seeing children in the public board schools. In 1879, the London School Board decided to carry out integrated education thoroughly and systematically.

Chauhan (1989) traces the origin of integrated education to Johann Wilthem Klein, founder of the Imperial School for the Blind who mooted the concept of integrated education in the early nineteenth century. He prepared a handbook to guide normal teachers in their educational ventures for the blind. Samuel Gridley Howe (1871) voiced strong objections to "social sequestration" and advocated having the blind "attend the regular schools in all cases where it is feasible." He considered residential education unnatural and supported integrated education.

Madden and Slavin (1983), however, attribute the growth of mainstreaming in the USA to the Education for All Handicapped Children Act of 1975, mandating the "least restrictive placement" of handicapped children. This means that many students who were formerly taught in self-contained special education programmes were to spend as much time as possible in the regular programmes, with only as much special instructions outside the regular class as absolutely necessary.

According to Frampton (1953) it was in Scotland that an early attempt, if not the earliest one, was made on integration. According to Lady Campbell (1921), "Blind children were placed with the seeing in Edinburgh in 1834-36, but lack of interest caused the plan to be given up. The first successful effort to place children in day school classes was made in Greenock, Scotland in 1868 only." Gallagher (1982) feels that the signs of mainstreaming blind children began to emerge during 1950 accompanied
Chapter 1 Review of Literature

by a proliferation in the number of rehabilitation and adjustment training centres.

4.3 Beginning of Integrated Education in India

Ras Mohun Halder, principal of the Dadar School for the Blind and pioneer in the field of the education of the blind in India refers to integrated education in the regular school system in his 1943 publication "The Visually Handicapped in India." He suggested establishing of a special class, in collaboration and co-ordination with a central sighted school, where these partially sighted (not totally blind) children can congregate in a separate room provided with special equipment and under supervision of a properly qualified teacher. The children could, with advantage, attend almost all the regular classes with the normally sighted children.

4.3.1 Bombay Experiment: Halder (1943) reported that the first experiment of this nature was started in 1940 by the Dadar School for the Blind in cooperation with the Hume High School, Bombay. Two bright pupils after finishing their elementary education in the blind school were sent to regular schools. One boy stood first in all his examinations in a class of 40 sighted children.

Halder (1943) reported that this experiment was started out of a local need and through economic necessity. Till then there was, however, no reported case of any blind child living in his parental home and attending a sighted school anywhere in India.

4.3.2 Joint Venture: According to Chauhan (1989), the first attempt in implementation of integrated education in India was made during 1960 by the Ministry of Education and the Royal Commonwealth Society for the Blind - now Sight Savers. This venture could not make much progress. One finds reference to the needs of providing special education in the Education Commission Report (1984-66) which recommends placement of disabled children, as far as possible in ordinary schools.

4.3.3 Individual Efforts: As reported in the Illustrated Weekly, Mrs. Rehmat Fazelbhoy, a pioneer of Integrated education in India, launched integrated education during June, 1958 with the admission of two blind students in the New Activity School, Bombay. Taylor and Taylor (1970) also confirm this and report that during April, 1967 seven blind children were enrolled here.

4.3.4 The Palanpur Experiment: This unique experiment on semi-integrated education emerged in 1963. Starting with 4 blind boys, it has grown steadily, and now it covers more than 100 blind boys and girls. The students provided residential accommodation in a special hostel. They attend nearby regular school in the morning and the resource centre in the afternoon.

4.3.5 The Visnagar Project: Itinerant Mode of integrated education of the rural blind children was initiated at Visnagar during 1981 with 11 children only. Till 1994, 232 children have been enrolled in the regular rural schools. The movement has spread to other areas of Gujarat as well and enrolment is more than 1200. Integrated education has also been accepted as a component of the comprehensive community based rehabilitation of the rural blind.

4.3.6 The Central Scheme of Integrated Education for the Disabled: It was evolved by the Ministry of (then Social) Welfare during 1982 (Chauhan, 1989). The scheme has since been revised during 1987, 1989 and 1992 in view of the national policy of education (1986). The revised scheme encourages coverage of mentally handicapped children. The revision also enables the voluntary organizations to seek financial assistance for its implementation.

4.3.7 Ramakrishna Mission Vidyalaya, Coimbatore: The vidyalaya initiated a major human resource development programme for promoting integrated education. During September, 1988
about 873 children including 644 totally blind and 229 low-vision children had been admitted in the regular schools in Tamil Nadu. In Karnataka, the Divine Light Trust took lead in training the itinerant teachers as 'a single man team' for promoting integrated education. More than 900 blind children have been admitted in the regular schools in Karnataka.

4.3.8 NIVH Survey: According to a survey conducted by the National Institute for the Visually Handicapped, Dehradun there are 190 schools for the blind in India. The total number of teachers in these schools is only 1,200 and total enrolment of children does not exceed 10,000 (Advani, 1989).

4.3.9 Target and Coverage: It is estimated by Advani (1989) that 1,27,000 visually impaired children in the age group of 5 - 14 years need educational facilities. About 7,000 children in the age group 0 - 4 years need early intervention including pre-school educational facilities (National Sample Survey, 1985). Thus currently not more than 10 per cent of visually handicapped children have an opportunity of going to special or regular schools.

4.3.10 Limited Coverage: Integrated education was initially launched for 74 schools and since then more intensive efforts have been made by the National Council for Education, Research and Training. But despite these earnest endeavors, the number of visually handicapped children in integrated education programme is hardly 4,000 - 5,000.

4.4. Seminar of Pioneers:

Realizing the world-wide demand for "total rehabilitation", the Christoffel Blindenmission Invited representatives from innovative programmes on education and rehabilitation from Africa and Asia in 1978 at Benshelm, Germany. This unique get-together is popularly known as "seminar of pioneers"

The pioneers after week-long deliberations concluded, "We express our disappointment and frustration that in spite of all the knowledge available on the subject of training, rehabilitation and integration of the blind, very little has been achieved.... particularly in the developing countries'.

'We summarize the disastrous effect of most existing programmes as....

- economically unviable
- socially isolating
- psychologically stunting'.

The pioneers emphasized the need for integration and community participation with regard to education, training, placement and open employment. They expressed their unanimous belief in a new service model that assists blind clients to remain in their community, to cope with life in the community and to be an accepted member of community. The pioneers thus advocated integration at all levels including at the level of education as well.

5. Residential Schools:

Under this system of education, visually handicapped children are provided residential accommodation, meals and clothes and they attend special schools. Most schools follow the regular academic curriculum. The students are also imparted training in various crafts, orientation & mobility and activities of daily living.
5.1 Advantages of Residential Schools:

The proponents of residential education and researchers in the field of education of the blind have pointed out the following advantages of this mode of education:

1. Availability of specialized trained teachers
2. Access to a wide range of special equipment
3. As the size of each class is small, generally limited to 10 students, it is possible to pay individual attention to each student
4. Teacher has adequate time for each student
5. Excellent system for the poor children as boarding and lodging is generally free
6. Well organized and clean environment
7. A shelter for abandoned or abused blind children
8. Excellent facilities for the development of other skills i.e. music, chair caning, weaving etc.
9. Adequate emphasis on plus curriculum i.e. braille, activities of daily living and orientation & mobility

5.2 Limitations of the Residential Education

W. Stein, who convened the seminar of the pioneers, subsequently during 1989 pointed out that integrated education for developing countries was not a matter of option but a compulsion. According to Kenmore (1985) this system is more than an alternative; it is quite literally the only hope for thousands of blind children in developing countries for any education. The researchers in the field of education have pointed out the following limitations of residential education:

5.2.1 Low Coverage: Of the 51 countries that supplied information for a recent study by UNESCO (1988), 34 - most are developing countries - have less than 1 per cent of their total population enrolled in special education provisions, with 0.03 per cent at the lower end of the range. WHO estimates that institutional based services which are the predominant form of service delivery, cater to nearly 1-2 per cent of rehabilitation needs in developing countries (UNESCO, 1988). Other estimates have indicated that possibly less than 1 per cent of disabled children in these countries receive any educational assistance (Brohier, 1990)

According to Jangira (1985) most developing countries visualize integrated education as an expedient measure to reinforce efforts to improve access to school as a part of the universalization of basic education. International funding agencies UNESCO and UNICEF also support it as an alternative to education of children with special needs in special schools.

Bowman (1985) maintains that special schools are quite limited in number and support services painfully inadequate. Trained personnel are in short supply and training facilities practically negligible. Cheah (1963) supports this contention by suggesting that special schools in Asia are inadequate and outmoded.

5.2.2 High Cost: Residential services tend to be costly due to the following factors:

- large expenditure on buildings, equipment, infrastructure, and establishment
- large per student expenditure on the specialist staff as the teacher-student ratio is as low as 1:5
- pupils need to be provided boarding and lodging facilities and other amenities
- there is hardly any financial contribution from the family.
Chapter 1

Review of Literature

The trend in India is that such residential schools should provide boarding and lodging facilities completely free of cost. Residential schools are run not as educational institutions but as charitable homes.

5.2.3 Restricted Growth: As the students at such schools are labelled as "special", it makes it difficult for them to ever re-enter the mainstream. Ahuja (1980) also supports this contention and maintains that the students coming out of residential schools are totally unprepared for life. They are unfit for employment in the open market and their emotional growth and development of personality too are limited. Shukla (1990) admits that the students who pass out of these institutions also develop rigid attitudes and do not appreciate 'give and take'.

5.2.4 Isolation of the Inmates: Stein (1990) goes to the extent of comparing residential schools with ghettos i.e. completely isolating the blind from society. People recognize the need for special education but do not want to be a part of it. The approach is comparable to creating special rooms for the sick and dying. Under the pretext of doing something for the ailing, the society created special rooms and thus isolated them totally. The same logic could be true for the creation of special schools. Stein (1991) declares himself to be a strong opponent of social institutions where they only serve as alternatives or an excuse for failure of both family and society. Pickering and Haskell (1986) also support this contention. According to them the earliest providers of services were the charitable organizations. The contribution of the charitable bodies, while of inestimable value in developing the system to its present level, carries with it a connotation of charity as opposed to rights.

5.2.5 Creating a Separate Group: Residential schools, however, for the first time in history raised hopes for the blind, hope for their liberation from mediocrity and hope for a better life. These schools, however, contributed to the phenomenon of "the blind - a group set apart". These schools cater to the needs of only a fraction of the blind population, and lack genuine rehabilitation concepts and provision for the reintegration of the blind into community. J. Johnson (1969) criticizes placement in special schools for labelling students as "special" and making it difficult for them to ever re-enter the mainstream.

Thorburn, M. J. (1987) also feels that the residential or custodial services tend to be very costly in relation to effectiveness of their programme, they isolate the child from the normal environment and because of cost and lack of skilled and motivated manpower, tend to be poor in quality. Cropp (1988) supports this contention and observes that residential provision cuts the child off from his home and his community, and can lead to institutionalization, rather than independence.

5.2.6 Resulting to Aggressive Behaviour: Mathur (1985) after conducting a in-depth study on social aggression of a blind inmate of residential education and training programme concluded that since the subject was socially deprived of love, affection and economic support (Mayor, 1981), from his family, he gradually developed the tendency of hostility, which later on was manifested in aggressive behaviour. The factors which play a significant role in socialization and fostering kinship being absent in a residential school and coupled with social isolation, turned him to be an aggressive individual. This study concludes with the observation that integration of the subject would save him from developing hostility and aggressive behaviour.

5.2.7 Inadequate Services: Jangira (1989) refers to the absence of adequate early intervention, parental participation and pre-school education programmes in such schools. There is also a conspicuous absence of programmes for meeting the educational needs of visually disabled children with other disabilities like mental retardation and hearing impairment. There is also a lack of instructional material for improving access of blind children to appropriate curricula to ensure equal
educational opportunities. These areas of concern, as pointed out by Jangira, are true for integrated education in the present context.

In the field of education as a whole, Jangira (1989) lists two more areas of concern i.e. isolation of special schools and the tendency of such organizations to consider similar organizations as competitive ones; more over most of these voluntary organizations confine their activities to a single disability. Wilson (1963) reiterated that residential schools can never, by themselves, cover more than the margin of the problem of inadequate educational facilities for the blind in India.

5.2.8 Poor Quality: Saxsena (1982) is also very critical of the quality of education in residential schools. The increase in the number of such schools has not been accompanied by a corresponding increase in qualitative excellence in the standard of education. Residential schools function as islands and are woefully ill-equipped to fulfill the expected role. Similarly Gallagher (1983) is not certain as to the potential role and impact of technology on residential schools.

According to Cropp (1985), it is difficult to cover the full range of academic subjects in such schools. Shukla (1990) goes a step further and maintains that the teachers of the special schools can not come out of their narrow grooves and ruts and shed their sectarian outlook which in turn affects quality of education adversely.

Oudheusden (1981) goes a step further and points out that in most cases blind children who receive education in residential schools in developing countries end up unemployed and frustrated.

5.2.9 Kenmore (1972) identified three major limitations of the residential education:

a. It has been assumed in all countries that what was done in special schools was the best possible. Today it is known from many graduates of some of these schools, that there have been many things not good there.

b. A second assumption about special schools was that teachers gained special understanding and knowledge about blindness. This is not necessarily true. Often older teachers passed onto younger teachers poor ways of teaching various subjects, incorrect information about blindness, and peculiar attitudes which hampered each succeeding generation of blind children.

c. A third assumption was that it was a kindness to blind children to shelter them from the world of the sighted while they were young and to prolong their childhood as long as possible. Special schools around the world often kept blind people in school until they were well into their thirties. The students of these schools thus always remained diffident and dependent.

Kenmore (1972) concluded that integrated education can help correct those old problems of special schools, can contribute to their improvement, for Integration must be tied to special schools. As one type of programme flourishes, the other will also.

6. Integrated Education:

6.1 Who Initiated Integrated Education:

Three groups of individuals played an important role in initiating integrated education (Stein, 1993):

6.1.1 Blind persons themselves: Many blind persons themselves were not satisfied with special
education. They took the initiative in encouraging integrated education.

This is true in India as well. Most of the initiators of integrated education like Jagdish Patel, Lal Advani, Ramnik Halari, Rehmat Fazalbhoy, Bhaskar Mehta, Narinder Kumar, Harshad Jani, Anil Patel, Ashir Nallathambi, B. B. Sahoo, M. K. Choudhary, A. S. Athalekar are themselves blind persons.

6.1.2 Progressive Teachers of the Blind: They discovered that the special education was not the right answer to education and complete development of the blind. Hence they initiated integrated education.

6.1.3 Parents of the Blind Children: They also realized that their blind children must be educated along with the sighted children and they encouraged integrated education.

6.2 Modes of Integrated Education:

Over the years, a variety of modes of integrated education have been successfully developed in various countries. Most of these modes are a combination of hostel facilities and complete integration. In India, almost all the modes listed below have been tried at various locations. The most popular modes integrated education in India are the itinerant mode and resource centre mode. All the modes have their own merits as well as demerits. The itinerant mode of integrated education is, however, the most suitable for India.

As integrated education is still at the stage of infancy, it is desirable to consider the nature of accommodation while explaining various modes of education. These five options can be modified in the context of the nature of residence and the following modes can be listed:

1. special school (residential Mode)
2. special school with limited participation in the regular class room (semi-residential mode)
3. complete integration
   3.1 resource centre mode
   3.2 itinerant mode
4. combinations of four modes

6.2.1 Model 1: Semi - Special Schools

i. Blind children are enrolled in special schools. They are provided residential accommodation in the special schools itself. They attend some classes in the regular schools in the vicinity and they return to special schools after the same.

```
\[ \text{REGULAR SCHOOL} \quad \text{SPECIAL SCHOOL} \]
```

\[ \text{Figure 1.4} \]

ii. Demerits: As students return to special school, after attending some lectures at regular school, they tend to isolate themselves. This model does not result into meaningful integration.
6.2.2 Model 2: Resource Centres Model

a. Resource Centre with Residential Accommodation: In this mode, blind children are provided residential accommodation and resource room facilities near a regular school. They daily go from their resource centre to the regular school and come back after the classes are over. The resource centre has facilities for producing braille material and has educational aids and appliances for blind students.

b. Resource Centre without Residential Accommodation: The blind children stay with their families in their own communities only. They are enrolled in a regular school in the vicinity. They attend the regular classes and have the same course curriculum as their sighted peers. The teacher of their regular classroom is responsible for general educational plan and for teaching the ordinary subjects that are required of all children (Bourgeault, 1970)

6.2.2.1 Acceptance in India: This mode is also explained as the residential annexe attached to a regular school. In India, this model is also termed as semi-integrated education. Most integrated education programmes supported by the Christoffel Blindenmission in Tamil Nadu have adopted this mode. Most city based integrated education programmes generally follow this mode.

6.2.2.2 Merits: As services of the resource teacher are available full time at the same location, the quality of support services and plus curriculum is better.

This model is feasible when there are at least four to eight students in a single school. This model is suitable for urban areas where a leading educational institute takes up the responsibility of implementation of integrated education.

6.2.2.3 Limitations: This mode, however, is not feasible where the population of blind children is scattered and it is not practically possible or feasible to enroll the required minimum number in one school.

According to Horton (1988), a resource room is feasible if there are four or more blind or low vision children attending the same school. Otherwise, it is neither economically feasible nor good use of a special teacher’s time to set up a resource room.

6.2.2.4 Demerits: The resource centres tend to become special schools as more and more blind children are identified or enrolled. The advantage of low initial investment, cost effectiveness, active community involvement and complete integration which are the principal objectives of integrated education are not fulfilled in this mode. For countries with resource constraints and large numbers
Chapter 1

Review of Literature

of blind children, this model is thus not desirable.

6.2.3 Model 3: Itinerant Mode of Integrated Education

Blind children stay with their families in their own communities only. They are enrolled in a regular school in the vicinity. They are provided services of an itinerant teacher and the educational instructional material and equipment. They accompany other sighted students to the nearby school and return to their homes, like other children, after school hours.

The itinerant teacher travels from village to village to provide special instruction and support services in the regular school or at the homes of the children. The number of times the itinerant teacher visits the school depends on the needs of the children. It could vary from one visit a week to as many as five visits a week (Horton, 1988). The difference in this mode is in the movement of the teacher rather than the movement of the children (Bourgeault, 1970).

The teacher - student ratio in this plan as approved under the central scheme of integrated education of disabled children (Annexure 10) is 1:8. Stein (1990), however, feels that this ratio should not exceed 1:6 if adequate attention is to be paid to each child. The actual ratio, at present, in the existing itinerant programmes is 1:12 mainly due to the low number of trained teachers and scarcity of resources.

Horton (1988) mentions about a teacher consultant programme in which the itinerant teacher travels from school to school but meets and guides the class teacher and not blind students. This mode is not prevalent in India.

6.2.3.1 Merits: Itinerant mode described above is the most effective mode of complete and true integrated education. It is the only alternative for the children staying in the rural areas where regular schools exist. This mode involves the family actively in education of the children. This mode has been adopted by all the projects initiated and encouraged by the Sight Savers and the National Association for the Blind. As this is the most appropriate mode, it needs to be discussed in greater detail:

a. The Itinerant/Resource teacher is expected to perform the following roles:

1. mobility and braille teacher
2. instructor in activities of daily living
3. teacher consultant to the class teacher
4. arrange admission of blind students
5. investigator to identify blind children in the assigned area
6. promoter of the idea of integrated education
7. an artisan as he is expected to train blind children in various local trades and crafts
8. career counsellor to the students completing school education
9. counsellor to the parents and the fellow students

b. Selection of Blind Children: Mr. Stein is of the opinion that the itinerant teacher should cover at the most 6 blind children at any point of time, whereas under the central scheme of integrated education of the disabled children (Annexure 10) recommended teacher - student ratio of 1:8.

The teacher - student ratio in case of the project areas is 1:12. In such cases where it is essential to maintain such a ratio due to financial constraints and other such reasons, the following procedure is recommended:

i. Visit all the blind children to be covered (12 in the present case).
ii. Administer a pre-planned questionnaire for evaluating the child in mental as well as social aspects
iii. Select 3 best children and initiate integration. Three best children may be selected on the basis of the following criteria:
   - Level of orientation & mobility
   - Language development
     - speaking ability
     - understanding ability
   
   For establishing this, ask simple questions:
   * names of family members
   * name of the village
   * routine activities
   * name of items of daily use, etc.

iii. ability of the child to identify the world around
iv. level of sensory development, etc.

iv. Arrange for the admission of the selected 3 best children and start pre-braille activities
v. Take the next 3 blind students when these 3 children are reasonably well settled.

During the first year, major emphasis should be socialization of the blind children. Academic development should not be the only target.

vi. While children in groups 1 and 2 are being covered, the itinerant Teacher should pay regular visits to other children at home to teach them initial skills.
vii. The blind children who are well settled in the regular schools should be used as a demonstration to others.

c. Stages for Preparing A Child for School: After the 3 best children have been identified, the following steps should be followed before the child is admitted into the regular school:

i. The first step should be Sensory Training i.e. activating the remaining senses of hearing, touch, taste and smell etc. As far as possible simple techniques and locally available material should be used
for this purpose.

ii. The next stage is imparting pre-braille training. Mr. Stein emphasizes that teaching of alphabets straight away must be avoided. Various Montessori aids should be introduced at this stage. The aim of this exercise should be to sensitize the tactile sense of the child and familiarize it with the concept of an embossed and tactual script like Braille.

iii. The pre-braille training should culminate into the teaching of Braille. Mr. Stein (1990) advocates a scientific approach to teaching of Braille. He makes the following observations:

- reading of Braille should be the first step
- beginning should be made with recognition of dots
- writing of Braille should be the last stage.

It is advisable to administer work sheets as suggested by Kirk Horton in his UNESCO publication on education of the blind.

d. Introduction to School: Itinerant teacher should perform the following roles:

i. Take blind child to the school one day in advance and orient him about the class room, toilet, staff room, prayer hall, place for drinking water and other facilities at the school.

ii. Approach the principal and explain him the whole approach to integrated education.

iii. Explain the programme to the class teacher and his role in the programme. The class teacher in turn may introduce the blind child to other students in the class.

iv. Encourage pairing of the blind child with a sighted child who could help the former while going to the toilet, in group activities to facilitate the participation of the blind child.

v. Explain to the class teacher the special equipment which blind child uses. He should also explain the contents of the Braille kit and the use thereof.

e. Working with the Blind Child: The itinerant teacher should perform the following roles:

i. Mobility Training: He should provide appropriate and adequate training in mobility to the child to enable his independent movement in the school.

ii. He should orient the child about the environment around his school. The following four locations must be explained to the child:

- class room
- toilet
- water tap
- play ground

iii. He should introduce the child with the principal and the class teacher.

iv. Build up a good rapport with the child before initiating any formal education. The first lesson must definitely not be an arithmetic lesson.
He should maintain a daily diary of the inputs given to each child and a log book depicting his travelling.

He must not dominate the class teacher, he should realize that both roles are complementary.

The frequency of visits of the teacher would depend upon the individual needs of the child. The frequency of visit should be more in the beginning and it may be reduced subsequently which would however depend upon progress of the child.

6.2.3.2. Integrated Education Process: The publication of the NAB rural activities committee "Guidelines for Social and Economic Rehabilitation of the Rural Blind" has reported an Integrated education process which is reproduced below with certain modifications. This process is relevant and advisable for the itinerant model of integrated education.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Person Responsible</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identification of blind children (3-12 years of age)</td>
<td>field workers, itinerant teacher</td>
<td>For admission in the regular school</td>
</tr>
<tr>
<td>2. counselling of the parents and blind children</td>
<td>field worker, itinerant teacher, project supervisor</td>
<td>convincing blind child to join the school, motivating parents to send the child to the school, popularizing inteted education</td>
</tr>
<tr>
<td>3. preparing the child orientation &amp; mobility</td>
<td>itinerant teacher</td>
<td>for enabling the child to move around</td>
</tr>
<tr>
<td>daily living skills</td>
<td>- do -</td>
<td>to enable the child to take care of himself</td>
</tr>
<tr>
<td>braille reading</td>
<td>- do -</td>
<td>introduction of braille</td>
</tr>
<tr>
<td>braille writing</td>
<td>- do -</td>
<td>access to material in braille</td>
</tr>
<tr>
<td>4. admission to the school</td>
<td>field worker, itinerant teacher, project supervisor, project director, school headmaster, education officer</td>
<td>education of blind children, social Integration, to popularize the concept and feasibility of such education, to demonstrate the skills of blind children to create public awareness</td>
</tr>
<tr>
<td>5. Involvement of class and school staff</td>
<td>resource/itinerant teacher, class teacher and</td>
<td>social integration, assistance in reading and home work, participation in education, sports</td>
</tr>
</tbody>
</table>
Chapter 1

Review of Literature

6. Incentive to class teachers

- school headmaster
- project director

and extra-curricular activities assistance in commuting and other daily living activities

7. Service Flow

- resource/ltinerant teacher
- class teacher
- headmaster
- project director

active involvement of teachers better attention and extra coaching adopting of special techniques by the class teacher for facilitating understanding of blind students cooperation of school management, teacher and fellow-students.

8. Evaluation

- headmaster & project director

performance evaluation of the children covered under the programme

Mode 4: Preparatory Schools

A mode which has not been reflected in the Dunn Pyramid is the preparatory schools. This mode is now emerging in India and needs to be studied.

This mode of education is becoming popular in the developing countries. In this mode, visually handicapped children are provided one or two years of preparatory services at a central place. This place may be a day centre or a residential centre. At the centre, the children are imparted training in skill development, pre-braille, braille, orientation & mobility, activities of daily living and socialization. After this training, they are enrolled into regular schools. They may be covered under the resource mode or Itinerant mode of education.

This mode is a combination of residential as well as integrated education. The beginning is made with special instructions with the objective of promoting integrated education.

This mode as reported by Punangong (1990) has been adopted in Thailand. The children come to the education centre from their rural homes and stay for approximately one year in the hostel. First they are taught basic living skills, such as personal hygiene, independence in daily living skills, getting around with and without a cane, and trust in others. After acquiring these skills, the children enter the preparatory programme, held at a centralized place or the child’s home attended by the itinerant teacher. They learn to read braille, use abacus and stylus. Then they are enrolled into a regular school under the itinerant mode of integrated education.

Mode 5: SPED Centres

According to Gregorio (1981), the most effective access route in the Philippines today that enables
Chapter 1

Review of Literature

the school-age blind children to benefit from services and education in the “least restrictive manner” is the special education centre, popularly known as the SPED Centre.

The physical dimension of a SPED centre may be anywhere from an unused classroom in a common school, a shared space in the library, or a school clinic, to a corner in a hallway or even an area underneath the stairways of the school.

The SPED centre makes available to the school age blind child a variety of educational services ranging from resource room instruction and partial integration for some, full integration in regular classes and special classes for the blind whose multiple handicaps may prevent him from getting the most out of education along with sighted peers.

The distance of the home of each child becomes the determinant of the specific programme plan for him. For the blind child who resides far away from SPED centre, itinerant teaching is adopted while resource room services are provided to students who live near the centre.

The SPED centre provides the following services:

a. Survey, location, screening and assessment and referral services for prospective pupils.

b. Selection of an appropriate programme plan viz. Integration, partial integration, resource services in specific class etc.

c. Provision of suitable requirements according to the specific type of handicapping condition.

The operational capacity of the SPED centre depends upon a number of local factors. In Philippines, it has been demonstrated that the special education teacher can assume the leadership in setting up school-age pupils in regular schools which would certainly increase their chance for full participation in life.

The SPED centre mode is combination of all the five models mentioned earlier as it takes care of all models of education of the blind. This mode is individual need based and is in consonance with the local conditions and the environment of the child.

Hammer (1989) also proposes that there should be “a new type of teacher of the visually handicapped students”, and one “who would be an advocate within schools for vision services for all children, including wide range of services needed by multiply-impaired children who have vision loss.” Mr. Stein (1990) adds, “New teacher has to perform a variety of functions in addition to functions performed by a class teacher. He has to work as a friend, philosopher and guide to the children, parents and the class teachers”.

6.3 Advantages of Integrated Education:

According to Stein, integrated education for the developing countries is not a matter of option but a compulsion. According to Kenmore (1985) this system is more than an alternative; it is quite literally the only hope, for thousands of blind children in developing countries, for any education.

According to Jangira (1985) most of the developing countries visualize integrated education as an expedient measure to reinforce efforts to improve access to school as a part of the universalization
of basic education. International funding agencies UNESCO and UNICEF also support it as an alternative to the education of children with special needs in special schools.

A large number of educators and workers of the blind have pointed out the following advantages of integrated education.

6.3.1 Low Cost: Expenditure on integrated education is comparatively lower as:

- there is no investment in building
- no maintenance of hostels (Fazelbhoy 1989, Bernardino 1969)
- no duplicating of land areas, play ground and equipment (Boureault, 1970)
- it is not an additional burden (Premlata, 1988)

According to Bailun (1990), it also educates community at no extra cost and operates at a fraction of the normal cost of educating a blind child in an institution. Kenmore (1972) and Swann (1981) also consider integrated education as the cheapest option. Cheah (1963) considers it a practical way of providing schooling for as many blind children as possible, at a cost which can be reasonably borne.

Brohier (1990) maintains that institutionalized special education facilities are still predominant in developing countries, usually urban-based and reflect a tendency to provide rehabilitation along traditional lines, with the inevitable combination of impressive buildings, elaborate equipment and specialized staff. Undoubtedly, students who pass through these institutions will often receive an excellent schooling, but as noted by Norman Acton, former Secretary General of the Rehabilitation International, "in so doing will consume resources that could have supported actions to reach thousands of people in their own communities".

6.3.2 Integration: The integrated education enhances the social acceptance of a child due to the following factors:

- the child has the advantage of being in an atmosphere and environment which he shares with his sighted peers. (Fazelbhoy, 1989)
- congenial company instead of isolation (Salisbury)
- a natural social environment (Bernardino, 1963)
- participating in the general community life
- stays with his family thus ensuring family bonding

Jangira (1991) while investigating sociometric choices relating to the academic, managerial and play related tasks and academic performances of visually impaired children in general schools found that these children are neither isolated nor below average in academic performance.

Kathleen (1978), however, saw the happy change in children entering special school who had found the pressure of surviving in regular schools too great or the organization of the regular school ill suited to their needs, with the handicapped debarred from sport, handicraft and other enjoyable subjects.

Mathur (1985) after conducting a in-depth study on social aggression of a blind inmate of residential education and training programme concluded that since the subject was socially deprived of love, affection and economic support (Mayor, 1981), from his family, he gradually developed the tendency of hostility, which later on was manifested in aggressive behaviour.

The factors which play a significant role in socialization and fostering kinship being absent in a
residential school with social isolation, turned him to an aggressive individual. This study concludes with the observation that integration of the subject will save him from developing hostility and aggressive behaviour.

6.3.2 Family Involvement: Visually handicapped children under integrated education also have their full share of family life along with their family members (Fazelbhoy, 1959). It forces the family to feel and assume its responsibility towards the child instead of shifting it largely to the institutions. It also enables the child to feel that he is an integral part of the family (Burritt, 1924).

It highlights as to why and how more institutionalized students could take part in daily life and education within their own local communities (Kristiansen, 1989).

Gardiner (1908), however, felt the other way. Sometimes the loving mother was the child’s worst enemy, and unless the child was rescued in time from such a “good home” there would be a lot of hard work for teachers that might be avoided if the child came to school before the home-spoiling process had gone too far.

Pearse (1912) also felt that there would always be children whose homes are such that they ought, for the sake of decency and for the sake of giving the child an equal chance, be taken out of those homes.

6.3.4 Better Understanding of the Sighted: Under integrated education, a sighted child obtains a better understanding of a blind student, his needs, his aspirations and the true picture of disability. It helps to reinforce that disability need not bar a student from attaining academic excellence (Fazelbhoy, 1989). It enables sighted students to appreciate the problems and feelings of the blind and to learn proper ways of dealing with them (Bernardino, 1963). Saxena (1982) also supports this contention.

Hellbridge, a teaching pediatrician, who has created a model integrated education programme in Germany supports this contention and observes (Stein, 1980), “Only if we promote the social development of a child, no matter in what way he is handicapped, at the earliest possible stage, and give him opportunity at pre-school and school age to know the world of non-handicapped.... Only if we give the non-handicapped child an opportunity early in his life to know and accept the handicapped child in the context of his social development, we will be able to really solve the problem of handicapped persons in our society.”

The education of disabled students with normal students is beneficial to both groups and is, therefore, to be encouraged as much as possible. This interaction can enhance the self-esteem, confidence and social skills of students with special needs and promote understanding and acceptance by students without special needs (Shore, 1986).

6.3.5 Better Acceptance: According to Rehmat Fazhelboy many misconceptions are destroyed when there is a close contact between blind and the sighted children, and foundations are laid for the acceptance of the former into the world after graduation.

The community at large still constitutes one of the major obstacles to independence since, as Tizard (1975) asserts, society finds it difficult “to treat handicapped people naturally”. He infers that this is because “we distance ourselves from handicapped persons by placing them in special settings”. Tobin (1988) concludes that the corollary of this is that full scale educational integration would in due course remove this particular obstacle.
6.3.6 Easy Public Acceptance: The organismic interaction, in terms of support from health and 
social welfare departments and augmentation of staff and services within existing education system,
will result in the strengthening of educational system by way of improving its responsiveness to both 
ordinary as well as disabled children through sharing of teaching and managerial competencies 
among the regular teacher and the special staff (Jangira, 1985).

According to Bernardino (1963) integrated education is more attractive, acceptable and salable to 
the supporting public and to the government fiscal authorities. Similarly, Kenmore (1972) feels that 
it has often been easier to construct good integrated programmes than to convince special schools 
that they need to make improvements. Similarly it is faster to train itinerant teachers and develop 
integrated programmes than it would have been to build special schools.

6.3.7 Demonstration: According to Han Zole, Head of Beijing Municipal Corporation Bureau (Shui, 
1981), having disabled children in regular schools is a positive factor. The courage and confidence 
shown by them in overcoming their difficulties is an object lesson to normal students in the cultivation 
of good character and it has had a unifying influence among the schoolmates. Similarly, Bailun Xu 
(1990) maintains that in China there has often been reduction in the drop out of sighted students in 
some schools as a result of encouragement from blind students who had been integrated into the 
programme.

Integrated education also helps in universal enrolment and retention of blind children in the education 
programme (Premlata, 1988); improves vocational opportunity for the blind (Bourgeault, 1970).

6.3.8 Familiar Environment: According to Horton (1988) transferring of knowledge is less of a 
problem in an integrated programme because the child is being trained in his home area. He also 
adds that as the parents watch the child being trained by the teacher, they would be able to form a 
more realistic picture of what the child is able to do on his own.

Cropp (1985), however, feels that in residential education there will be adequate scope for the teaching 
and experiencing of life skills and independence in real situation from day to day, without encroaching 
on teaching time out of school hours which Invariably happens in case of integrated education. In 
residential education, there is likely to be a greater variety of leisure activities with specialist help 
available.

Rai (1882) while comparing the facilities in residential schools for the blind and integrated settings 
discovered that though better facilities are available in residential schools, remedial instructions were 
provided better in general schools.

6.3.9 Community Participation: Pickering and Haskell (1986) advocate that central to the argument 
for integrating disabled children in regular schools is the belief that they are members of the 
community and have the right to grow and develop Inside that community. In Australia, the parents 
are pressing for 'rights legislation' encompassing the right of every child to be educated in a regular 
school; non-categorization of disability; and no child to be denied schooling on the basis of claimed 
ineducability.

Ozoji (1990) also argues that since handicapped children are eventually expected to live in the society, 
their education should necessarily be provided within the framework of ordinary rather than residential 
schools.

Kenmore (1985), a staunch supporter of integrated education, points out that integrated education 
is one way in which visually handicapped children can learn day by day, how to belong, how to fit.
Eaglestein (1975) compiled data on mainstreaming blind students and concluded that these data testify to the success of placement in a regular school programme and the results of preventing the reported educational retardation evidenced in special education programmes (Hatley, 1973). The social status of the blind students shows that they are bound into the social framework and are by no means accorded any social position outside this framework.

6.3.10 Right of a Child: Thus integrated education is not being viewed merely as an option but as a right of every disabled child. Stein (1981) supports this contention and maintains that any society's ethical, moral and spiritual value can be measured according to not only whether or not it tolerated its handicapped members, but whether it fully accepts them. One of our philosophers said the handicapped people need society, but society needs its handicapped members also.

6.3.11 Conclusion: On the basis of these observations, one may conclude beyond doubt that integrated education is the only viable available alternative for promoting universal education of the blind in the developing countries. It scores better on the following accounts:

- social integration
- quality of vocational training
- cost effectiveness
- personality development
- coverage
- understanding of the sighted, etc.

According to Bourgeault (1970) integrated education is logical, practical, viable, educationally sound and can be accomplished at a minimum cost. According to Bailun (1990) integrated education is more a matter of necessity than a luxury.

6.4. Limitations of Integrated Education

6.4.1 Not Very Cost Effective: While discussing merits of integrated education, it was pointed out that integrated education is very low cost and cost effective. Sibley (1898), however, points out that if the state were to apply all these special methods and appliances that are required to give the blind an education, at various places all over the state, it would be far more expensive than it is to congregate them in one school and teach them. They are congregated simply as a matter of economy, in one sense.

Pearse (1912) also disputed the contention of exorbitant cost of residential education. He points out that the cost would be too great for the community or for the state, and so, as a matter of administrative economy, not particularly of education, these children must be gathered together in institutions under the charge of those specially fitted for that work.

Advani (1990) maintains that integrated education in the Indian context is not as cost effective as is considered. If expenditure on resource room, material, salary of teachers and other incidental expenses are considered, the cost difference between residential schools and integrated education programme would not be significantly large.

Burritt (1924) has also made similar observations. He points out that the teachers of integrated education programme receive higher salaries and usually no overhead is included in the cost, as the class for the blind is assigned to one room in a building, all overheads being absorbed.
Hodgson (1985) also maintains that integration of visually impaired pupils is not a cheap option. The pupils will most likely require the support or special equipment presently available in the specialized schools in order to learn effectively and develop their potential.

6.4.2 Low Enrolment: This system has been prevalent in India since 1956. The progress is dismal in the following aspects:

- enrolment
- number of regular schools admitting such children
- quality of training, and
- availability of educational material.

Only 3,000 blind children have been enrolled under integrated education (Advani, 1990).

6.4.3 Declining Enrolment: Findings of Dixit (1985) are very alarming. He established that the percentage of schools providing integrated education has declined from 83.72 per cent during 1972 to only 50 per cent during 1982. The reason for this drastic decline is attributed to the fact that initially the schools tried the new concept but were considerably discouraged for many reasons.

Dixit also established the phenomenal increase in the average number of pupils per residential school from 50.4 to 69.04 during the same period (increase is significant with t = 2.26). During the same period, number of pupils per teacher also increased from 5.6 to 6.8 (increase is significant with t = 1.9). The study also establishes that residential schools have upgraded the level of education they impart. Average number of trained teachers also increased from 3.03 to 7.51 which is a significant increase (t = 4.72).

Frampton (1953) after analyzing the enrolment in residential schools and in regular schools in the United States over 75 years concluded, "It is interesting to note that, percentage-wise, the number of blind children enrolled in residential schools for the blind has not appreciably changed since the beginning of day school movement over the last 50 years'.

Danielson and Bellamy (1989) also note that percentage of children served in segregated facilities have remained stable over time. Frampton (1953) emphasized that residential school has met the demand for its public service to the blind child and therefore remains the popular choice of the vast majority of those people deeply concerned about maximum education and care of blind child.

6.4.4 Restricted Growth of the Concept: Webster (1989) considers mainstreaming merely a social experiment. He states, "The public school administration has to have blind kids in his programme to justify his programme and to justify hiring a visually impaired teacher."

Cole (1989) also maintains that integrated education made only limited progress to the present day. In the opinion of Kathleen (1978), integration remained 'a value judgment highly charged with emotions'. She reiterates, "There is indeed something to be said for being "ordinary" in a special school, rather than "special" in an ordinary school'.

Similarly, Chapman and Stone (1986) noted that in the 1980s many special schools for the blind achieved excellent examination results. They further held that parents' appreciation of this was likely to be one of the factors which made them press for special education.

6.4.5 Special Needs of Special Schools: Gardener (1910) advocated that teaching a blind child requires extra care, time and patience, and it cannot be done in a class for the seeing without retarding
the general progress of the class. He regarded the modern movement to remove blind children from blind schools to sighted schools, whatever its motive might be, as a monumental mistake.

MacMillan (1977), however, made observations contrary to this. He reported that students in special classes were often given a watered-down curriculum by teachers who were seen as less qualified than regular class teachers. Research of Madden & Slavin (1983) on achievement generally fails to support instructional effectiveness of special class placement.

6.4.6 Limited Integration: Some of the researchers have pointed out that integrated education does not always result into integration of visually handicapped children into the education and community. The system has inbuilt limitations in this respect.

Hatlen (1988) established that integrated education did not result in the automatic development of proficiency in these academic, social and emotional areas. They did not have skills to initiate conversations, dress appropriately for interviews or work, ask for or refuse assistance, etc. Although educated in unrestricted environments, adult life for many of these individuals was restricted by their lack of skills and competencies.

Fricker (1892) resisted co-education of the blind and the fully sighted. His contention was that like seeks like and there is very little common between the blind and the sighted in methods of education.

Webster (1989), however, believes that most blind and visually handicapped children, educated under integrated education, are friendless, socially inept and academic failures. Studies of Hoben and Lindstrom (1980) also showed poor interaction between the visually handicapped and the sighted and poor social status of the former.

As for the benefit of association with the seeing, Gardiner (1910) believed the child had a much greater chance of happiness when playing with other blind children - all on a par - instead of being left behind whenever a group of seeing companions took a notion to do something or to go somewhere where the care of the blind one would be an inconvenience.

Kristiansen (1989) points out that nothing is more unequal than equal handling of unequals. If we, as investigators, are being deceived by information and communication technology without a critical consideration of the dazzling effects of the new, we may run the hazard of segregating within an integrative approach. Then we have got children at risk.

Madden and Slavin (1983) have also made similar observations. They point out that it is not uncommon to see a classroom in which a teacher is teaching the class while one mainstreamed student is sitting in the back corner colouring or doing nothing at all. Regular class teachers, already overburdened with their usual teaching assignments, often resist having students with academic handicaps placed in their classroom (Alexander & Strain, 1978; Horne, 1979).

In one survey (Gickling & Theobald, 1975), 85 per cent of a sample of regular class teacher did not feel prepared to accept academically handicapped students in their class. Shotel, Lano & McGilting (1972) found that teachers who actually experienced an integrative resource room programme became less optimistic about the possible effects of mainstreaming than they were before the programme began.

Eaglasten (1975) also found that there was evidence that as the length of exposure to blind students increased, their acceptance by the sighted classmates decreased and led to a certain degree of rejection and lowering of social status.
6.4.7 Poor Academic Achievement: Hatlen (1988) observed that many integrated children were weak in two primary areas that integrated programmes were intended to remedy: social and emotional functioning and academic skills. Martin & Hoben (1977) also felt that as though a large number of young adults had not benefitted sufficiently from the academic programmes of which they had been a part. Many young adults who went on to higher education or became clients of rehabilitation agencies experienced serious problem in academic subjects such as reading and mathematics, despite a long history of high grades in these subjects from regular classroom teachers.

6.4.8 Apathy of Parents: Mittal (1981) is of the opinion that in India where parental attitudes towards blind child are found to be mostly negative and where social prejudice is presently too strongly embedded to allow free and equal participation in the activities of the community and common school, the success and efficacy of integrated education needs to objectively assessed.

Solanki (1983) reported low mannerism in blind children studying in regular schools than those studying in residential schools for the blind.

6.4.9 Not suitable for All Children: Fazelbhoy (1959), a crusader of integrated education, also admits that every blind child, however, can not be educated in regular schools. It can not be denied that learning with sighted children imposes a certain amount of strain on the blind child, there are times when the child finds himself on the sidelines, unable to participate in certain activities.

Cheah (1963) also feels that there will be children who will require specialized services of a residential school.

Ramakrishna Mission Vidyalaya (1989) reported that about 10 percent of identified disabled children are either over aged or below the school going age. In order to streamline these unserved children, residential schools have been endorsed the responsibility of bringing them up by providing necessary pre-school training so that they can be inducted into integrated education.

Cropp (1985) points out that an important gain of residential education will be in consistency of management, which is of particular value for more severely handicapped pupils.

6.4.10 Difficult to Implement in Urban Areas: Fazelbhoy (1990) points out that getting blind child accepted in urban schools proves more difficult than rural schools. As most of residential schools are located in urban areas, the concerned authorities do not see the need for admitting a blind child into a regular school. The Third Asian Conference (1968), however, noted that the introduction of integrated education in rural areas may face some difficulties.

6.4.11 Curriculum Constraints: Cropp (1985) recognizes that a fully integrated setting presented potentially major constraints for all pupils with visual impairment. He conceptualizes these constraints in terms of time, equipment, staffing and physical environment. He recognized the following curriculum constraints in this respect:

a. Teaching of specific skills of orientation & mobility and braille results into missing of activities undertaken by his seeing peers.

b. A mainstream school can not normally offer access to the type of equipment available in a special school.

c. Quality of equipment and educational material is restricted.

d. The class teacher can not be expected to have knowledge of specialist inputs. Similarly the specialist teacher may lack familiarity with mainstream curricula and approaches.
e. Many a times, school environment is unsuitable to meet the special needs e.g. lighting etc.
f. There is an age-range dilemma in terms of effects of placing older visually handicapped pupils with younger pupils.

6.5 Summary of Criticism of Integrated Education: Frampton and Kerney (1953) listed the following major criticisms of Integrated education:

1. Inadequate books and equipment;
2. A conspicuous lack of effective physical education programme;
3. A complete lack of effective manual training, vocation and placement programmes;
4. Inadequate facilities for training in music (orientation & mobility and daily living skills);
5. Unavailability of services for a slow-learning blind Child;
6. Too few hours with the teacher;
7. Too large classes, lack of tutorial services;
8. Real isolation within a school for the sighted;
9. Difficulty in respect of guide and transportation facilities in case of children in rural areas;
10. Work is largely experimental after almost 90 years (35 years in the case of India);
11. Per capita cost not lower when all relevant costs are properly tabulated
12. Emphasis is given to partially sighted rather than the totally blind, as the former are easier to educate
13. Inability of the school system which is geared to meet the needs of major group (sighted) to offer meaningful services to the handicapped regardless of their good intentions;
14. Failure in reaching out to children in remote and inaccessible rural areas;
15. Inadequate provision for children with special problems or children presenting multiple handicaps.

The main criticism has been aimed at its inability to provide a complete and a well rounded programme for a blind child. To evaluate the contribution of residential schools, Frampton and Kerney (1953) scrutinized the residential schools for the blind in the United States using the following standards:

1. time and endurance
2. social adaptation
3. demand, and
4. the product

These standards were applied to ascertain whether residential schools for the blind can stand rigorous demands of these measures of social utility.

They observed that the residential schools have withstood the tests of time and endurance, and for the most part the essential structure has remained relatively the same as it was at the time of its appearance in the educational field.

Residential school has also displayed "survival power". As an organization it has changed with the changing demands of the whole social structure, adapted itself to the constructive criticism of the new socio-economic philosophies, conformed to current patterns of the age in which it lives.

They observed that subsequent to the development of integrated education for the blind, the records of enrolment in residential schools have not seemed to change major thesis, namely, that, because of more complete education and care, the public prefers to see its children educated in residential schools.
Similarly, the graduates of residential school after school days are over, have emerged in a wide range of competitive jobs in a sighted world, a living testimony of the success of vocational and academic training programmes of residential schools for the blind.

7. Future of Residential Schools

Abbott (1910) listed six reasons why residential schools would no doubt continue to be needed:

i. It does not seem to be possible at present to make any suitable provision for integrated education of the blind in rural communities or smaller cities. Fazelbhoy (1990), however, contends that in India it is easier to promote integrated education in the rural areas than in the urban centres. In fact, majority of integrated education programmes in India are rural based.

ii. The problem of getting children to and from school each day still looms large.

iii. It is difficult to make suitable provisions for the physical training of these children in regular schools.

iv. Instruction in music, orientation & mobility and daily living skills comparable with that provided in residential schools can not probably be given in regular schools.

v. Instructions in the trades (crafts and professions) which have been identified as being most suitable for the blind can not be imparted in regular schools,

vi. The text books used by the seeing child are so numerous and, in the average school system, are changed so often, and the embossing (or recording) of books is relatively so slow and expensive a process that providing all blind children with text books is one of the most serious problems to be met.

Singh (1989) maintains that parents' late acceptance of a child's blindness is a prominent reason for admission at a late age to a special school. Thus visually handicapped children from 10 to 14 years of age who could not have any exposure to schools earlier need to be admitted to primary classes.

It is essential to run special schools for such adult blind. The Adult Training Centre (School) for the Blind, Ahmedabad admits blind persons above 14 years of age and provides formal education till higher secondary level. The Integrated education has been widely promoted in the area from which the students are admitted to this school, still there is waiting list of adult blind persons seeking admission to the school.

8. Which System is Better:

The educators, professionals, administrators and workers in the field of education of the blind have discussed, argued and debated this question for over more than one century. The question has still not been answered (Horton, 1988). Integrated education has been the only subject of discussion at several world meetings (Kenmore, 1985).

Thomas (1985) observed that some reviews of research in which the progress of handicapped children in regular classes has been compared with that of similar children in segregated classes (so called efficacy studies) have leant towards the integrated class as the superior environment (Johnson, 1962; Dunn, 1968; Guskin & Spiker, 1968; Tizard, 1974). While none of the supporting arguments including the efficacy studies are conclusive or even clear cut, they have amounted to a case for
taking stock of our traditional position on placement.

The professionals have very strongly advocated that integrated education is low cost, socially desirable and the only viable solution of educating millions of blind children. Some of them have gone to the extent that integrated education is not an option but a compulsion, particularly for developing countries. Hence, there is no question of comparison between two systems. The philosophical basis of Integration emanating from the normalization principle, labelling and equal opportunities principle is supported by reports of successful integration practices (Thomas, 1985).

Yet the residential schools have not only continued to provide education but have grown in number, have more enrollment and have improved the quality of education (Frampton, 1953). It is only in this century that a large number of integrated education programmes have developed, and now this system is operating in over 30 countries with government support (Kenmore, 1985).

In India, both the systems are prevalent and are being promoted simultaneously. The state governments are providing grants for the maintenance of special schools and hostels, whereas financial assistance for promoting integrated education is available from the ministry of human resources development, government of India under the central scheme of assistance for integrated education of disabled children (Revised 1987, 1989, 1993) (Annexure 10).

The national policy on education has emphasized the need for encouraging integrated education. At the same time, it has recognized supporting special education for children with specific problems and multiply handicapped.

From the available literature on residential as well integrated education and various research studies, it is difficult to clearly establish:

1. Which system is better than the other?
2. Within a particular system which particular mode of education should be promoted?
3. What is the possibility of adopting a middle path approach and what should be the level of integration and residential support?
4. Need for transition from one model to another and time span and criteria for the same?
5. Need for evolving various criteria of establishing efficacy and evaluating performance of a particular system and testing reliability of that criteria.

Oliphant (1912) evaluated the integrated education, contrasting it with residential education. He concluded, "As to the educational environment, for purposes of acquiring knowledge and modes of making livelihood, I think special education has the advantage, - for purposes of learning the art of living, I think integrated education has the advantage".

Tobin (1972), however, indicated that the integration/segregation debate centers upon beliefs, hopes, and long-term aims, and depends not so much upon empirically determined facts as upon "a value judgment concerning the role the child is to assume later in relation to seeing persons".

9. Middle Path Approach

Both the modes of education and combinations thereof have stood the test of time and they are bound to stay. The experience in Gujarat has established that with the promotion of integrated education, the enrolment in residential schools has increased. The children who cannot be accommodated in the regular schools due to age, multiple disabilities, lack of availability of secondary level education in the vicinity and other such factors seek admission in residential schools.
Similarly, a number of residential schools are also performing the role of a resource centre, material production centres and preparatory centres. Residential schools have also initiated teacher training courses for the Itinerant teachers. Many leading educationists of the visually handicapped who have been promoting residential education are now promoting integrated education as well.

In India and other developing countries, both these modes of education are relevant and desirable. Both the modes and their combinations should be promoted. It is, however, essential that the criterion for selection of the mode of education should be based on the convenience of the child and his felt needs. The middle path approach has been advocated by a large number of experts across the world. The following statements of the most leading educationists across the world support this contention:

9.1 Target Oriented Approach:

9.1.1. Segmentation According to Level of Handicap: Van Cleve (1916) remarked in this respect, "I am coming to the conclusion that the provision for the visually handicapped in integrated education may better be confined to partially sighted who may be placed in conservation of vision classes (integrated education) and leave to the specially organized and equipped institutional schools the work with the totally or partially blind*.

9.1.2 Segmentation According to the Level of Education: Namgayel (1985) stresses that integrated education should be adopted from the ninth standard onward. It is important that blind students should develop some self confidence. They should get basic feelings of education or schooling before they are integrated into the regular schools. Whereas the Asian Conference (1968) recommended introduction of integrated education at all levels.

9.1.3 Segmentation According to Availability of Services: The Ohio report (1950) concludes that "special classes in the public schools" would be best for the majority of blind children but that the residential school should be maintained for blind children where such classes do not exist or where these children could not be educated. Cheah (1963) also supports this contention.

9.2 Need for Co-ordination:

Lowenfeld (1946) desires co-ordination between residential schools and regular schools. According to him a school for the blind no longer is an organization that has practically no contact with the stream of life in the general public school system of the state. It is a part of that stream into which it channels the pupils who have become adjusted, and from which it receives those who need special training or temporary adjustment. These views were incorporated into "Oregon Plan".

W. R. Dry (1948) reviewed the Oregon Plan after it had been in operation almost for five years. His five conclusions were:

I. It is not only possible, but entirely feasible to correlate the work of the residential school and the public schools.
II. Such a programme is not inimical to the interest of the children without sight or those with low vision.
III. There must be cooperation between all agencies interested in the health, welfare and education of visually handicapped children.
IV. Such programmes will, in all probability, achieve the following ends:
Chapter 1

Review of Literature

a. Increase enrolment in the residential schools
b. Help by locating visually handicapped children sooner and so ensuring maximum in physical restoration, and educational and emotional adjustment at an early date.
c. Decrease the time the children are required to spend at the residential school.
d. Enable the facilities of the residential school to serve a much greater number of visually handicapped children, so eventually decrease the number of such children.
v. If such a programme is to be possible, administrators and staff of the residential schools for the blind must broaden their horizons to include not only blind child with extremely low vision, but every child who has any visual handicap.

9.3 Complementary Roles:

Bourgeault (1968) also supports this contention and maintains that integration is not a substitute for a quality residential programme but, rather, a complementary service. The role of a residential school is significant one, but without a doubt, a changing one, and much must be done to strengthen their staff and to modify their curricula so that the over-aged beginner and the multi-impaired can be better served than in the past. He concludes, "No programme in any state, region or nation is complete without both residential and integrated educational opportunities."

9.4 Education According to the Felt-needs of the Children:

The Perkins School for the Blind proposed "The English Plan" in 1952. The Plan proposed:

- formation of council;
- placement of a number of pupils in public schools;
- establishing of braille classes;
- providing of educational material and equipment;
- co-operating with the state departments in determining the most suitable programmes for an individual child, either in residential school or elsewhere;
- and transferring him from one type of schooling to another as circumstances may direct.

The plan advocated the philosophy that the educational programme should be fitted to the child, and not the child to the programme. The points to be considered in this context are: physical, mental and emotional maturity, eye condition, family status and the school facilities in his home town. In each case each child is treated as an individual case, and the answer is found on the basis of, what seems best for the child, not personal bias of one group or another.

Thomas (1985) concludes that our guiding principle must be to find the educational environment of those available to us, that best meets the needs of the child rather than to choose the most convenient integrated setting.

9.5 Integrated Approach:

Jangira (1986) also proposes a service delivery mode which takes into consideration the strengths of both the modes to generate an "eclectic mode" which elevates it from a mere 'mix level' to the organismic integration of the two modes. Namgayel (1985) also supports this contention and advocates that the special school should work as a base school. It should provide reading material and required equipment.

Bourgeault (1970) also advocates that the emphasis should be placed on the needs of the blind
children for special instructions and for independence rather than on administrative convenience.

The Third Asian Conference on Work for the Blind while recognizing the importance of integrated education, accepted the value and role of special schools and recommended their development. The conference accepted the fact that integrated education was not the only means of providing education and observed that, where other alternatives existed, each child should be placed in a suitable programme after proper screening.

Fazebhoy (1990) supports this contention and states that while deciding about the system of education to be introduced for a particular child, we should first understand and take into consideration the child himself, his environment and opportunities which will be best suited to him.

Frampton (1953) concludes, "Give the blind light - and they will find their way."

10. Conclusion:

The education per se is generally defined on the basis of aims and objectives, whereas special education is defined on the basis of the educant and the mechanism or arrangement for the education. All modes of education have the same goal of promoting formal education of the disadvantage group. They, however, differ in the means of achieving the same. Residential education focuses at the attainment of education through special schools. Integrated education aims at providing education within the regular education system, whereas semi-integrated education enables the pupils to avail special residential facilities and to attend the regular school in the vicinity.

The aim of education, however, is giving the blind child a knowledge of the realities around him, the confidence to cope with these realities, and the feeling that he is recognized and accepted as an individual in his own right.

In India, education of the disabled was not accepted as a legitimate component of general education and continued to be treated as a mere welfare activity for too long. The national policy on education (1986) for the first time considered 'education for all', including that of disabled persons, as one of cherished goals of the national development.

The major advantages of residential schools include availability of trained teachers, individual attention, special equipment, opportunity for development of other facilities, free boarding and lodging facilities and emphasis on plus curriculum. The limitations, however, include low coverage, high cost, restricted growth, isolation of inmates and inadequate services etc.

Whereas major advantages of integrated education include low cost, integration, participation of family and community, familiar environment, better acceptance and the demonstration effect. The integrated education scores better in respect of social integration, vocational training, cost effectiveness, extensive coverage and utilization of existing infrastructure. The limitations of such education include restricted growth of the concept, limited integration, apathy of parents, deprivation from individual care and special equipment, and administrative inconvenience.

Both these modes of education have stood the test of time and they are bound to stay. Both the modes, in the present context, are relevant and desirable. These modes should not competitive but complimentary to each other. It is, however, essential that the criteria for selection of the mode of education should be based on the individual felt needs and convenience of the child. The education programme should be fitted to the child, and not the child to the programme.