Chapter IV

Views of Leading Educators
CHAPTER IV

INTER MODE COMPARISON OF IN-BUILT MERITS AND DEMERITS OF VARIOUS MODES OF EDUCATION OF THE VISUALLY HANDICAPPED

VIEWS OF LEADING EDUCATORS OF THE VISUALLY HANDICAPPED IN INDIA

1. Need for Such a Study

1.1 Lack of Indigenous Research:

While reviewing the published material on education of the visually handicapped (Chapter I), it was realized that plenty of relevant research studies conducted and published abroad, particularly in the U.S.A. and U.K. are available. However, only a few studies on education of the visually handicapped in India have been conducted and published so far.

1.2 A Large Number of Experienced Educators:

There are a number of educators of the visually handicapped in the country (Annexure 3) who have devoted their lifetime in initiation, promotion, implementation and administration of a variety of modes of education of the visually handicapped. Most of these experienced voluntary workers as well as professional educators do not have any publications to their credit. Hence it is not possible to compile their views from the secondary sources of information.

A detailed analysis on the physical and financial effectiveness of integrated education (Chapter II) as well as residential education (Chapter III) in Gujarat has been done on the basis of administration of structured questionnaires to the organizers of the respective modes of education. It was, however, considered essential to seek responses of leading educators of the visually handicapped in the country for seeking their views about effectiveness of various modes of education of the visually handicapped prevailing in the country.

1.3 A Comparative Study:

The objective of this exercise was to compare merits as well as demerits of various modes of education as perceived by the leading educators. Only four modes viz. resource centre mode, itinerant mode, semi-integrate education mode and residential education have only been covered in the pre-designed questionnaire as they are the most prevalent ones (Chapter III).

1.4 Explanation of the Questionnaire:

The questionnaire no. III entitled "Inter-model Comparison of In-built Merits and Demerits of Various Models of Education of the Visually" was circulated among most of the leading educators of the visually handicapped in the country (Annexure 3). The principal objective was seeking responses of the
educators pertaining to various aspects as well as modes of education of the visually handicapped.

1.4.1 General Information: The first 9 questions of the questionnaire sought general information from the respondents regarding the extent of prevalence as well as incidence of visual disability, knowledge about prevalence of various modes, views regarding merits of each mode of education. Information was also sought about the number of schools of the blind, extent of enrolment under different modes of education, and the estimated population of the visually handicapped in the country.

1.4.2 Specific Evaluation: The question no. 10 which is the subject matter of this study, desired the respondents to evaluate 64 statements pertaining to merits as well as demerits of various modes of education. These statements have been selected from the published literature on education of the visually handicapped. Last ten statements advocated middle path approach to the promotion of education of the visually handicapped.

1.5 Selection of the Respondents:

28 leading educators (Annexure 3) were identified based on bibliography and published material on the subject; participation in national as well as international seminars, workshops and conferences on education of the visually handicapped; list of resource persons, researchers and administrators in the field of education of the visually handicapped compiled by the Rehabilitation Council of India. The questionnaire was circulated among these persons. After 3 months, a reminder was also sent. Within 6 months of its circulation, 21 persons returned the duly completed questionnaire. The responses of these 21 educators (Annexure 3) of the visually handicapped constitute the subject matter of this research study.

2. Modes of Education of the Visually Handicapped Prevalent in the Country

The leading educators listed the various modes of education as per the following details:

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Modes of Education</th>
<th>Frequency (Maximum 21)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Integrated Education - resource mode</td>
<td>20</td>
</tr>
<tr>
<td>2.</td>
<td>Integrated Education - itinerant mode</td>
<td>20</td>
</tr>
<tr>
<td>3.</td>
<td>Semi-Integrated Education</td>
<td>15</td>
</tr>
<tr>
<td>4.</td>
<td>Residential Education</td>
<td>20</td>
</tr>
<tr>
<td>5.</td>
<td>Private Tutoring</td>
<td>8</td>
</tr>
<tr>
<td>6.</td>
<td>Any Other</td>
<td>2</td>
</tr>
</tbody>
</table>

2.1 Three Modes of Education:

The study reveals that the most common modes of education of the visually handicapped prevalent in the country are:

a. Integrated education - resource centre,
b. Integrated education- itinerant mode, and
c. Residential education

All the respondents excepting only one indicated prevalence of these three modes of education. 75 per cent of the respondents also indicated the prevalence of semi-integrated education in the country. Whereas only 38 per cent of the respondents pointed out private tutoring as a mode of education of the visually handicapped.

2.2 Dual Teaching Model:

One respondent pointed out the prevalence of dual teaching model of education. In this case, the regular class teacher assumes the responsibility for developing special skills in a blind child in addition to his regular class responsibilities (Marti, 1992). The class teacher assumes the dual responsibility of a class teacher as well as a resource teacher.

Similarly, another respondent also considered 'education to special needs' as a mode of education. It aims at special skill development as a preparatory stage to the school admission. It may be comparable to pre-school adjustment training. Hence, it does not seem to constitute a complete mode of education.

2.3 Summary:

Only four modes of education viz. residential, semi-integrated, integrated - resource and integrated - itinerant are prevalent in the country. The prevalence of last three modes has been accorded equal weightage of 20 out of a maximum of 21. Various other modes viz. cooperative plan, cluster model, multi-skilled teacher plan which have been implemented abroad are still not popular in the country.

3. Modes of Education Being Promoted in the Country

The respondents were given the option of indicating the mode of education they were promoting at present by listing the above-identified four most prominent modes. The following statistical information has been compiled from these responses:

Table 4.2
Promotion of Various Modes of Education

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Mode of Education</th>
<th>Frequency (Maximum 21)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Integrated-Resource</td>
<td>7</td>
</tr>
<tr>
<td>2.</td>
<td>Integrated-Itinerant</td>
<td>13</td>
</tr>
<tr>
<td>3.</td>
<td>Semi-Integrated</td>
<td>4</td>
</tr>
<tr>
<td>4.</td>
<td>Residential</td>
<td>11</td>
</tr>
<tr>
<td>5.</td>
<td>Any Other</td>
<td>2</td>
</tr>
</tbody>
</table>

3.1 Itinerant Mode:

It is the most popular mode of education among the leading educator of the visually handicapped. Residential education is also very prominent as almost 50 per cent of the respondents are promoting
Chapter IV Views of the Educators

It as well. The study reveals that at present both the systems - residential as well integrated education are being promoted almost at the equal level by the respondents.

3.2 The Resource Centre Mode:

It is also emerging as a popular mode of education as one-third of the respondents are promoting the same. The semi-integrated education which generally signifies a shift from residential education to integrated education is yet not popular as only 20 per cent respondents are promoting it.

Two respondents also mentioned promotion of preparatory education leading to integrated education and training of teachers for encouraging integrated education. These respondents are promoting integrated education by preparing children as well as training teachers for the same.

3.3 Nature of Involvement:

The responses of the leading educators may also be analyzed in a different way by analyzing their nature of involvement.

Table 4.3

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Mode Promoted by Respondents</th>
<th>Frequency</th>
<th>%age of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Only Integrated Education</td>
<td>9</td>
<td>43%</td>
</tr>
<tr>
<td>2.</td>
<td>Only Residential Education</td>
<td>5</td>
<td>24%</td>
</tr>
<tr>
<td>3.</td>
<td>Both - Residential &amp; Integrated</td>
<td>7</td>
<td>33%</td>
</tr>
</tbody>
</table>

It is interesting to note that 43 per cent of the respondents are promoting only integrated education. Whereas one-third of the respondents are promoting both - residential as well as integrated education for the visually handicapped. Only one-fourth of the respondents are committed exclusively to promotion of residential education.

It may be easily concluded that integrated education is comparatively more popular among the leading educators as compared to that of residential education.

4. Level of Preference for Various Modes of Education

It was considered expedient to seek opinion of the respondents regarding the level of individual preference for various modes of education prevalent in the country. The objective was to establish the desired preference for various modes of education.

The respondents were asked to specify the order of preference for the four selected modes of education using a 4 point scale. The following statistical observations have been made:
Table 4.4
Preference for Various Modes

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Mode of Education</th>
<th>Aggregate Score</th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Integrated-Resource</td>
<td>58</td>
<td>3</td>
</tr>
<tr>
<td>2.</td>
<td>Integrated-Itinerant</td>
<td>53</td>
<td>2.8</td>
</tr>
<tr>
<td>3.</td>
<td>Semi-Integrated</td>
<td>45</td>
<td>2.4</td>
</tr>
<tr>
<td>4.</td>
<td>Residential</td>
<td>36</td>
<td>1.9</td>
</tr>
</tbody>
</table>

4.1 Highest Priority:

The resource mode of integrated education has been accorded the highest preference and residential education the least preference. The Itinerant mode of integrated education has been accorded the same level of preference as that the resource mode.

It may be concluded that both resource as well as itinerant mode of integrated education are the most preferred modes of education at present in the country.

4.2 Preference for Different Modes:

In-depth study reveals that even some of the staunch supporters of residential education have shown preference for semi-integrated education. Similarly some of the respondents who are at present promoting itinerant mode (Annexure 2) have shown preference for the resource mode of integrated education. The respondents who are at present implementing resource mode have generally supported this mode itself.

There is thus a gradual shift in the preference levels from residential education to semi-integrated education and from itinerant mode to resource mode of integrated education.

5. Merits of Residential Schools

The respondents were exposed to 24 statements which have been identified as merits of residential education from the published literature on the subject (Questionnaire III Q. N. 4). They were asked to select the statements which they advocate as merits. They were also permitted to list other merits of this mode. The responses have been grouped under three headings:

1. Statements supported as merits
2. Statements generally rejected as merits
3. Other merits

5.1 Statements Supported as Merits:

The leading educators of the visually handicapped in the country have rated various merits of residential schools in the declining order of preference as listed below:
Table 4.5
Merits of Residential Schools

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Merits of residential Education</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ideal for slow learning blind children</td>
<td>17</td>
</tr>
<tr>
<td>2.</td>
<td>Small classes hence personal attention</td>
<td>15</td>
</tr>
<tr>
<td>3.</td>
<td>Only option for multihandicapped blind children</td>
<td>15</td>
</tr>
<tr>
<td>4.</td>
<td>Free boarding &amp; lodging facilities</td>
<td>15</td>
</tr>
<tr>
<td>5.</td>
<td>Better facilities for plus curriculum</td>
<td>14</td>
</tr>
<tr>
<td>6.</td>
<td>Access to educational aids</td>
<td>14</td>
</tr>
<tr>
<td>7.</td>
<td>Availability of braille books</td>
<td>14</td>
</tr>
<tr>
<td>8.</td>
<td>Only option for areas with no regular schools</td>
<td>13</td>
</tr>
<tr>
<td>9.</td>
<td>Access to mobility aids</td>
<td>12</td>
</tr>
<tr>
<td>10.</td>
<td>Better vocational training</td>
<td>11</td>
</tr>
<tr>
<td>11.</td>
<td>Better public appeal</td>
<td>11</td>
</tr>
<tr>
<td>12.</td>
<td>Easy to get grants</td>
<td>11</td>
</tr>
<tr>
<td>13.</td>
<td>Only option for blind children with special needs</td>
<td>11</td>
</tr>
<tr>
<td>14.</td>
<td>Better trained Staff</td>
<td>10</td>
</tr>
<tr>
<td>15.</td>
<td>Better training in music</td>
<td>10</td>
</tr>
<tr>
<td>16.</td>
<td>Only option for the adult blind</td>
<td>10</td>
</tr>
</tbody>
</table>

The merits of residential education as pointed out by respondents may be grouped easily under seven major headings:

5.1.1 Ideal for Children with Special Needs: The respondents consider residential schools as an ideal avenue for the education of blind children with special needs including the ones with additional disabilities, slow learners and the adult blind. Residential education is thus considered appropriate for such visually handicapped children who would otherwise find it difficult to cope up in the regular settings.

5.1.2 Ideal for Special Training: The respondents also consider the residential schools better equipped for teaching of plus curriculum, vocational training and music. This aspect of special nature of training has been considered a major advantage of such education. In-depth study reveals that such schools are generally imparting training in craft, activities of daily living, orientation & mobility, music, and such related aspects.

5.1.3 Administrative Convenience: Administrators prefer to set up residential schools instead of integrated education as it is easier to seek public contributions and government grants due to visible charitable nature of such activities and existence of grant-in-aid schemes of the state governments for supporting such schools. The educators generally feel that these aspects generally encourage the managements to establish residential schools as these are tangible and concrete programmes under one roof against integrated education in which case the beneficiaries are generally scattered.

5.1.4 Convenience in Availing Financial Assistance: In most of the states, the grant-in-aid for residential schools and the special hostels is generally provided by the department of social welfare. The ministry of welfare has also evolved a scheme, popularly known as "Central Scheme of Setting up of Residential Schools for Handicapped Children". Under the scheme, 90 per cent grant for all
admissible items of expenditure is available. Adequate grant-in-aid for the construction of buildings as well as purchase of equipment is also available. The grant-in-aid for integrated education is at present at the stage of infancy and the procedure of releasing the grant has yet not been streamlined which generally discourages the administrators in respect of initiation and adoption of integrated education.

5.1.5 Better Educational Facilities: The fifth major set of merits is better educational facilities in terms of personal attention of staff, comparatively better trained and experienced staff and access to educational as well as mobility equipment and material. In-depth study reveals that the size of a class in a residential school has been restricted to ten only. Whereas in the regular schools the desired size of the class is 50 or more. Due to small classes, it would be possible for the class teacher to pay personal attention to each student. About 75 per cent respondents consider this aspect as a merit of residential schools.

5.1.6 Ideal for Poor Students: The respondents also feel that residential schools score better in respect of extending free boarding and lodging facilities. As most of the residential schools in the country are run as charitable institutions under grant-in-aid from the state or central government, free boarding and lodging facilities are provided to the inmates. Hence this mode of education is considered ideal for visually handicapped children who come from poor families. About 75 per cent respondents consider this aspect as a merit of this mode of education.

5.1.7 Only Option for the Adult Blind: Similarly for all those students who can not join the regular schools due to higher age, this mode is the only available option. About 50 per cent of the respondents pointed out that residential schools were the only option for the formal education of the adult blind.

A large number of parents of young visually handicapped children do not accept blindness and they keep on availing treatment from one hospital to another; from one city to another; from one source to another. Hence by the time they accept blindness as incurable, the child crosses the school-age. It is not possible and advisable to admit a visually handicapped child above the age of twelve years in a regular school. The Central Scheme of Integrated Education of Disabled Children (Annexure 10) initiated under the auspices of the ministry of human resource development stipulates maximum age of eight years for enrolling a disabled child under integrated education.

5.2. Statements Rejected as Merits of Residential Schools:

As mentioned earlier, 20 respondents were asked to evaluate 24 statements (Questionnaire III Q. No. 4) which have been identified as merits of residential education from the published literature. All the 16 statements which were supported by at least 50 per cent of the respondents have already been discussed in para 5.1 as merits of residential education. However, 8 statements which were listed as merits of this mode have not been supported adequately (frequency less than 10 out of maximum of 20). These statements have thus been rejected as merits of residential education by the leading educators.

The statistical analysis reveals that the following statements pertaining to merits of residential education did not find adequate favour with the respondents as the rating of these statements is less than 10 out of 20.
Table 4.6

Statements Not Considered as Merits of Residential Schools

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Statement</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Blind child feels isolated in a big class of sighted children</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>Only option for blind children after middle school education due to lack of regular middle schools in the villages</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>No problem of adjustment with sighted children</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>Quality of education (residential) is better</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Availability of versatile Information</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>Availability of health care facilities</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>Per-capita cost not higher than integrated education when properly compared</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>A blind child has a greater chance of happiness playing with other blind children</td>
<td>4</td>
</tr>
</tbody>
</table>

5.2.1 Quality of Education: Only 30 percent respondents supported the contention that the quality of education is better under residential education. Similarly the statements that better infrastructure as well as health services are available in such schools did not find much favour with the respondents.

5.2.2 Better Acceptance: The staunch supporters the world over, as pointed in the Chapter I on "Review of Literature", have always advocated the contention that the visually handicapped have a greater chance of happiness playing with other visually handicapped children. The respondents, however, did not consider this argument as of any significant merit. Only 13 per cent of the respondents rated this aspect favourably. This observation dispels the notion that residential schools are more popular amongst visually handicapped students as they prefer being educated with other visually handicapped persons.

The usually contended psychological advantage of better acceptance of visually handicapped children amongst other such children has not been considered a major merit of residential education.

5.2.3 Comparable Cost: Similarly contention of a few experts abroad that cost of residential education is comparable to integrated education if calculated properly has not been confirmed by the leading educators of the visually handicapped in the country.

In other words, residential education is considered more expensive as compared to integrated education. Similarly, the contention that it is the only option for children after middle classes has been negated by more than 80 per cent of the respondents.

5.2.4 Better Health Care: The contentions regarding availability of better health care facilities and that of versatile information also do not find adequate favour with the respondents. Availability of such facilities in residential schools has neither been confirmed nor considered as a merit of such mode of education.
5.3 Other Merits of Residential Education:

After reviewing the available literature pertaining to education of the visually handicapped, 24 merits of residential education were listed in the questionnaire III (Q. No. 4) for the sake of seeking responses. The respondents were also asked to list any other merits they consider relevant.

The respondents listed 10 other merits of residential schools. Different respondents generally mentioned different additional merits based on their individual experiences and opinions. It is felt that most of these merits as listed below are relevant and could be included in the research of similar nature for further investigation and systematic evaluation.

The additional merits as pointed out by the respondents are listed below:

i. The existence of residential schools helps in creating awareness among general public that visually handicapped children can also be educated.

ii. Special education is ideal and probably the only option for visually handicapped children from slums and rural areas where the family environment is not congenial for regular education. As residential education is imparted away from the family, such children could easily be educated in residential schools.

iii. Residential education is the only option for visually handicapped children belonging to the families living below the poverty line. Where the survival of the family is a major threat, imparting of regular education which involves certain expenditure is almost impossible.

iv. The quality of physical education and recreational facilities in case of residential education are better. Similarly training in specific crafts is convenient in this mode.

v. Residential schools have emerged an ideal avenue for the employment of the educated visually handicapped as teachers. This observation can be substantiated from the fact that out of 250 members of the All Gujarat Blind Teachers Association, 70 per cent have been employed by the schools for the visually handicapped.

vi. The appointment of visually handicapped persons as teachers under residential education serves as a living example for visually handicapped students and it removes the inferiority complex among the latter.

vii. Residential schools are emerging as laboratories for conducting experiments for evaluating latest trends in the field of residential education. These are also emerging as an ideal avenue for developing new concepts in the field of rehabilitation of multi-handicapped blind children. Out of four existing programmes for the rehabilitation of the multi-handicapped, three have been established under the auspices of the residential schools.

viii. These schools are also emerging as avenues for the training of special teachers. Most of the teacher training programmes for the special teachers at present are conducted by the residential schools in the country. The only recognized training course for the teachers of the blind in Gujarat is being run under the auspices of a residential school.

ix. These schools are also suitable for carrying out research projects related to visual handicap. One of the residential schools in Gujarat is recognized as a scientific research organization by the
It is possible to encourage social integration of visually handicapped children by availing services of volunteers. Some residential schools have succeeded in developing a strong volunteer base for providing services of readers and writers to the inmates.

6. Merits of Integrated Education

The respondents were exposed to 15 statements (Questionnaire III, Q. No. 5) which have been compiled as merits of integrated education from the published material in India and abroad. They were asked to select the statements which they considered as merits of this mode. They were also asked to list any additional merits they are aware of.

6.1. Statements Supported by the Respondents.

The respondents rated the following statements in the declining order of preference:

<table>
<thead>
<tr>
<th>SN.</th>
<th>Merit of Integrated Education</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Better adjustment of a blind child with sighted children</td>
<td>19</td>
</tr>
<tr>
<td>2.</td>
<td>Involves family in the development of blind child</td>
<td>19</td>
</tr>
<tr>
<td>3.</td>
<td>Sighted children have a better understanding of a blind child</td>
<td>19</td>
</tr>
<tr>
<td>4.</td>
<td>Only alternative for large coverage</td>
<td>19</td>
</tr>
<tr>
<td>5.</td>
<td>Prevents uprooting blind children from familiar surroundings</td>
<td>18</td>
</tr>
<tr>
<td>6.</td>
<td>Blind child has a full share of family life</td>
<td>16</td>
</tr>
<tr>
<td>7.</td>
<td>All round growth of personality of a blind child</td>
<td>16</td>
</tr>
<tr>
<td>8.</td>
<td>Lower per-capita expenditure</td>
<td>15</td>
</tr>
<tr>
<td>9.</td>
<td>Better chance of pursuing higher education</td>
<td>12</td>
</tr>
<tr>
<td>10.</td>
<td>Enables early intervention and rehabilitation of a blind child</td>
<td>12</td>
</tr>
<tr>
<td>11.</td>
<td>Teaches the principle of symbiotic existence</td>
<td>11</td>
</tr>
<tr>
<td>12.</td>
<td>Easier to get readers/writers</td>
<td>10</td>
</tr>
</tbody>
</table>

The merits of integrated education as evaluated by the respondents can be easily grouped under five major headings:

6.1.1 Better Social Integration: Almost all the respondents consider better adjustment of visually handicapped children in society, family participation and his better acceptance by the sighted peers as principal advantages of integrated education. Even the most staunch supporters of residential education consider social integration and social acceptance of visually handicapped children into the family as major merits of integrated education.

The respondents also support the contention that integrated education expedites social integration and all round growth in the personality of a child. The respondents specifically point out that integrated education would enable the child to stay in the fold of the family and it will encourage his
acceptance by the family members. Integrated education also scores better in respect of overall development of the child as compared to residential education.

6.1.2 Mass Coverage: Similarly, all the respondents without any exception consider integrated education as an exclusive mode of en masse coverage of visually handicapped children. In other words, the fact that it is never going to be possible to cover a large number of such children through residential education has been duly acknowledged and supported by the respondents.

6.1.3 Low Cost: The third major advantage of integrated education is the comparatively lower per capita cost of education. 15 out of 19 respondents (63 per cent) consider integrated education as more cost effective as compared to residential education. Even many staunch supporters of residential education supported the contention that in case of integrated education per child expenditure is comparatively lower.

Even while evaluating statements pertaining to the merits of the residential schools, the respondents supported the statement that per capita cost of residential education is higher than the integrated education when properly compared. The study thus establishes the contention of the respondents that cost of education in case of integrated education is comparatively lower.

6.1.4 Comprehensive Approach: The respondents also support the statement that integrated children have a better chance of pursuing higher education. Similarly this mode enables early intervention and comprehensive rehabilitation of a visually handicapped child. It is probably due to the fact that it is easier to identify younger visually handicapped children and enrol them into regular education due to extensive community oriented coverage of such education.

In case of residential education, the enrolment of a child is subject to initiative, knowledge and willingness of the parents. Whereas in case of integrated education enrolment is on the initiation and persuasion of the resource/itinerant teachers. Thus integrated education has the inbuilt advantage of early identification, early intervention, early coverage and early enrolment of a visually handicapped child.

6.1.5 Better Acceptance: The respondents also feel that it is easier to avail services of sighted readers and writers in case of integrated education. The smooth acceptance of a visually handicapped child by his sighted classmates and school-mates, makes it easier to convince and motivate the latter to read lessons and to write examination papers etc. for the former. However, only 10 out of 19 respondents supported the contention.

It may be easily concluded that integrated education has the advantages of better adjustment, better acceptance, effective social integration and the lower cost. Similarly integrated education facilitates higher education, early intervention, comprehensive coverage and community participation in the education process.

6.2 The Statements Not Supported by Respondents:

The respondents, however, did not adequately support the following contentions which are advocated as merits of integrated education abroad. Thus these statements considered as merits elsewhere have not been considered relevant in the Indian context.

6.2.1 Quality of Teachers: The respondents have outrightly rejected the contention that the quality of teachers under integrated education is better. This observation supports strong contention of the
exponents of residential education that the quality of teachers under residential education is better.

Table 4.8

Statements Not Considered as Merits of Integrated Education

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Merit of Integrated Education</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Only alternative for pre-school training</td>
<td>9.</td>
</tr>
<tr>
<td>2.</td>
<td>Easier to get grant from central government</td>
<td>6</td>
</tr>
<tr>
<td>3.</td>
<td>Quality of teachers is better</td>
<td>4</td>
</tr>
</tbody>
</table>

This is probably due to the fact that integrated education is a recent phenomenon in the country. There are hardly any commensurate facilities for the training of resource/itinerant teachers. This limitation of integrated education is not an inbuilt weakness of the mode. It is mainly due to limited teacher training facilities in the country.

This point was raised and debated in the national workshop on integrated education convened by the National Council for Educational Research and Training, New Delhi during 1991. Pursuant to the recommendations of the national workshop, the Central Scheme of Assistance for Integrated Education of Disabled Children (Annexure 10) has already been modified, making it compulsory, for the itinerant teachers, to a complete one year’s course in special education within a period of three years, to be eligible for salary grant under the scheme.

6.2.2 Government Grants: Similarly, 13 out of 19 respondents (63 per cent) did not support the contention that it was comparatively easier to get grants from the central government. The residential schools receive almost 100 per cent grant on a regular basis from the state governments whereas the ministry of human resource development provides grants for integrated education on a year to year basis. This system of releasing central grants through the state government has yet to be regularized and standardized.

6.2.3 Pre-school Education: The contention that integrated education is the only alternative for pre-school education does not find much favour with the respondents. They feel that such type of education may also be imparted under residential mode of education.

In fact, in the case of integrated education, pre-school education has yet not been adopted as a part of the programme. Only in the case of community based rehabilitation programmes which are generally initiated prior to introduction of planned integrated education, the children are imparted training in orientation & mobility and activities of daily living etc. There is no systematic programme of imparting pre-school education, particularly in the case of itinerant mode of integrated education.

Thus these three aspects which have been advocated as merits of integrated education by the educators abroad have not been considered merits of this mode of education by the respondents in this country.

6.3 Other Merits as Pointed Out by Respondents:

Interestingly, while evaluating merits of residential schools, the respondents pointed out at least ten additional merits. Whereas in the case of integrated education, the respondents evaluated most of
the merits listed in the questionnaire no. III but did not point out any additional merits. This leads us to the conclusion that most of the respondents generally aware and convinced of the concept of the in-built merits of integrated education but they still wish to justify the existence of residential education by advocating a number additional merits of the same.

7. Number of Residential Schools

At present there is no conclusive study or information regarding the number of residential schools for the blind in India. As most of leading educators of the visually handicapped were being approached for this study, it was considered expedient to seek their opinion regarding the number of schools in the country (Questionnaire III Q. No. 6).

Out of 21, 4 (19%) respondents did not answer this question. Probably they are not aware or not sure about this figure. The other responses of the remaining 17 respondents are listed below:

Table 4.9

Number of Residential Schools

<table>
<thead>
<tr>
<th>SN.</th>
<th>Number of Schools</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>200</td>
<td>5</td>
</tr>
<tr>
<td>2.</td>
<td>225</td>
<td>4</td>
</tr>
<tr>
<td>3.</td>
<td>250</td>
<td>5</td>
</tr>
<tr>
<td>4.</td>
<td>300 or more</td>
<td>3</td>
</tr>
<tr>
<td>5.</td>
<td>Can not Answer</td>
<td>4</td>
</tr>
</tbody>
</table>

Range: 200 to 300
Weighted Mean: 238

The secondary sources of information and a variety of relevant directories also indicate that the number of the residential schools ranges from 200 to 250. In the present study also, 14 (66%) respondents have also indicated the range of 200 to 250. If we ignore the four respondents who did not answer this question, 14 out of 17 respondents (82%) have indicated the range of 200 to 250. It is interesting to note that within this range, the responses for three figures of 200, 225 and 250 are almost evenly distributed. While it may not be desirable to consider the weighted average of 238 as an exact figure, it is, however, appropriate to consider a range of 225 to 250 as acceptable.

According to this study, the number of residential school in the country ranges between 225 to 250. The secondary sources of information also corroborate this range.

8. Number of Visually Handicapped Children in Residential Schools

As in the case of number of residential schools, there is no definite and conclusive study regarding the number of visually handicapped children studying in these schools. The respondents were desired to indicate the number of such children through a multiple choice question (Questionnaire III Q. No. 7)
Chapter IV Views of the Educators

As in the case of residential schools, 5 respondents did not answer this question. Thus only 16 respondents indicated certain figures as indicated below, ranging between 8,000 to more than 12,000 as enrolment of visually handicapped children in the residential schools.

Table 4.10

Enrolment of Blind Children in Special Schools

<table>
<thead>
<tr>
<th>S.N.</th>
<th>No. of Children</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8,000</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>10,000</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>12,000</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>More Than 12,000</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Can not Answer</td>
<td>5</td>
</tr>
</tbody>
</table>

Range: 10,000 to 12,000
Mode: 10,000

The secondary source of information (Advani, 1992; Punani & Rawal, 1993) also establish enrolment of visually handicapped children in the vicinity of 8,000 to 10,000. While this study could not lead to a definite conclusion, the average of 10,000 children studying in the residential schools seems to be appropriate.

It may thus be concluded that there are about 225 schools for the visually handicapped with enrolment of 10,000 children. Thus, on an average, there are only 45 children in each school. A similar observation have been made in chapter II on "Residential Education in Gujarat". Almost similar level of enrolment of 54 children per school has been observed in Gujarat as well.

9. Number of Integrated Children

As in the earlier cases, 5 respondents did not indicate any definite figure and pointed out that they could not say anything in this respect. The remaining 16 respondents pointed out the following figures:

Table 4.11

Number of Integrated Children

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Enrolment of Integrated Children</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2,000</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>3,000</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>5,000</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>More Than 5,000</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Can not Say</td>
<td>5</td>
</tr>
</tbody>
</table>

Range: 2,000 to 5,000
Mode: 5,000
Almost 50 per cent (8 out of 16) of the respondents who indicated any definite figure have pointed out that at present (1992) the enrolment of integrated children is 5,000 or more.

It is evident from the secondary source of Information that in Tamil Nadu alone more than 1,500 visually handicapped children have been enrolled under the resource centre mode of integrated education (Mani, 1989). Similarly in Gujarat more than 1,000 children have been enrolled under the itinerant mode and 120 under the resource mode of integrated education. Thus the figures of 2,000 as well as 3,000 are gross under estimates.

Considering the secondary sources (Advanl, 1992; Punani & Rawal, 1993) of information as well as responses of the respondents of the present study, the figure of 5,000 seems to be appropriate. In India, at present about 5,000 visually handicapped children are studying under Integrated education.

10. Population of the Visually Handicapped in the Country

It was also considered pertinent to seek the responses of the leading educators regarding the estimated population of the visually handicapped in the country. While a variety of estimates ranging from 3.47 million (National Sample Survey, 1985) to 131 million (NPCB Survey, 1989) on population of the visually handicapped are floating, responses regarding three major studies viz. WHO estimate, National Sample Survey, and NPCB Survey were sought (Questionnaire III Q. No. 9).

Out of 21 respondents, 3 expressed ignorance regarding the estimated population of the visually handicapped. One respondent indicated a population of 5 million which does not match with any definite study. Thus only 17 respondents responded in definite terms. The following statistical observations can be made:

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Study</th>
<th>Frequency Supported (Maximum 17)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1981 WHO- 9 Million</td>
<td>2</td>
</tr>
<tr>
<td>2.</td>
<td>1985 NSS- 3.75 Million</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>1988 NPCB-WHO- 11 Million</td>
<td>10</td>
</tr>
</tbody>
</table>

Range : 3.75 to 11 Million
Mode : 11 Million
Weighted Average : 8.62 Million

10.1 Most Appropriate Study:

The joint study of the World Health Organization and National Programme on Control of Blindness (1986-89) regarding the extent of blindness in the country seems to be most preferred. Majority of respondents (58.8%) consider this study to be the most appropriate one.

In fact, most of other specialists and experienced persons in the field who have not been covered in the present study have considered this study as the most appropriate and authentic. This is the only
study which differentiates between the curable as well as incurable visually handicapped persons. Whereas the other two studies have merely provided estimates about the visually handicapped persons without establishing the extent of curable as well as incurable blindness.

The NPCB-WHO study provides detailed information regarding causes of blindness, incidence of blindness, state-wise prevalence of blindness, extent of curable as well as incurable blindness, backlog of eye surgeries and existing level of state-wise performance of eye surgeries etc.

10.2 Most Appropriate Estimate:

Thus the figure of 11 million visually handicapped persons as indicated by WHO - NPCB survey, at the population level of 800 million, including 85 per cent of them curable seems to be most appropriate figure. If we consider existing population of 880 million (as per the Population Clock), the estimated population during 1994 should be 13.12 million. Out of which 11.05 million are curable persons and the remaining 1.95 million are incurable blind persons. In fact, one of the respondents also pointed out this figure.

11. Procedure

Based on the review of literature (Chapter I), published in India and abroad (mostly abroad), 64 statements of the leading educators of the visually handicapped pertaining to merits as well as demerits of residential as well as integrated modes of education were identified (Questionnaire III Q. No. 10).

11.1 Focus of Statements:

These statements generally pertain to the following major areas:

1. Cost of programme
2. Level of social integration
3. Level of acceptance
4. Quality of education
5. Extent of availability of facilities
6. Extent of coverage of the target group
7. Level of employment orientation
8. Performance of children

The odd number statements generally favour the residential system, whereas the even number statements favour integrated education. Thus the statements are listed in a pattern of one statement supporting residential education followed by the one supporting integrated education.

The last 12 statements support a middle path approach or complementary roles of both modes of education. These statements focus on the child and his needs irrespective of the system of education.

11.2 Selection of Respondents:

Based on the published material, participation in the national as well international conferences on education of the visually handicapped, publication of papers, professional training, experience and extent of involvement in promotion of education of the visually handicapped, 25 leading educators of the visually handicapped were identified. The pre-designed questionnaire was mailed to them with
a request to duly complete and return the same within one month. After two months, a reminder was also mailed to all those who had not responded by that time.

Within 6 months of the first mailing of the questionnaire, 21 persons returned the duly completed questionnaire. The list of these respondents is given in annexure number 2. The responses of two respondents have not been considered for the purpose of evaluation of statements. Thus the following statistical analysis is based on responses of 19 leading educators of the visually handicapped.

To test the sincerity and seriousness of the respondents, three ‘barometer’ statements which are in complete contrast to earlier similar statements had been included in the questionnaire. Based on responses to these ‘barometer’ statements and general pattern of responses, seriousness of the respondents was established. Based on this test, responses of 2 respondents were rejected from this analysis. It has been established that these respondents have evaluated the statements either without paying adequate attention or without understanding these statements.

11.3 Evaluation Scale:

For the purpose of uniform evaluation, Likert 5 point evaluation scale has been selected. The respondents were required to rate every statement using the following scale:

- 5 stands for ‘strongly agree’
- 4 stands for ‘agree’
- 3 stands for ‘indifferent’
- 2 stands for ‘disagree’
- 1 stands for ‘strongly disagree’

The respondents were desired to tick mark only one of the five options provided for each statement.

11.4 Statistical Tools:

As five point scale has been used for rating various statements, the statistical tools of arithmetic mean, standard deviation, mode and chi-square test have been used for identification of most preferred variables and the order of preference of such variables.

For convenience, ‘SYSTAT’ programme of computerized statistical analysis has been used. The mean, standard deviation tables (Annexure 9B) ‘Frequency Tables’ (Annexure 9C), Pearson Correlation Matrix (Annexure 9D), and Factor Loading Plots have been drawn for 64 variables and 19 cases.

11.5 Exclusion of Statements:

Based of testing the divergence of observed results from those expected on the hypotheses of equal probability (null hypotheses), all those statements in which the null hypotheses has been retained have been listed below. In this case the null hypotheses is that there is no evidence of either strongly favourable or a strongly unfavourable attitude toward the proposition. The retention of the null hypotheses signifies that the statement is neither strongly accepted or rejected by the respondents and hence does not lead to any definite conclusion. Such statements do not reflect any definite sentiments of the respondents. Thus statements have been excluded from the further statistical analysis.
Table 4.13

Rejection of Statements Based on Retention of Null Hypotheses

<table>
<thead>
<tr>
<th>S.N. (Statement No.)</th>
<th>Statement (Author)</th>
<th>Statistical Results: Mean</th>
<th>S.D.</th>
<th>Mode</th>
<th>Chi-Sq</th>
<th>Ho</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. (4)</td>
<td>Expenditure on Integrated education is comparatively lower (Fazelbhoy, 1989)</td>
<td>3.789</td>
<td>1.273</td>
<td>5</td>
<td>7.524</td>
<td>Accepted</td>
</tr>
<tr>
<td>2. (8)</td>
<td>Inmates of residential school are deprived of love, affection &amp; economic support (Mayor, 1981)</td>
<td>3.474</td>
<td>1.073</td>
<td>4</td>
<td>9.1579</td>
<td>Accepted</td>
</tr>
<tr>
<td>3 (49)</td>
<td>Many residential schools have achieved excellent results and the parents appreciation of this was likely to be one of the factors which made them press for residential education (Chapman &amp; Stone, 1986)</td>
<td>3.316</td>
<td>1.204</td>
<td>4</td>
<td>5.4735</td>
<td>Accepted</td>
</tr>
<tr>
<td>4. (45)</td>
<td>There is indeed something to be said for being &quot;ordinary&quot; in a residential school, rather than &quot;special&quot; in an ordinary school (Kathleen, 1978)</td>
<td>2.947</td>
<td>1.079</td>
<td>3</td>
<td>5.999</td>
<td>Accepted</td>
</tr>
<tr>
<td>5. (1)</td>
<td>If the expenditure on resource room, material, salary of teachers and other incidental expenses are considered, the cost difference between the residential and integrated education programmes is not significant (Advani, 1990)</td>
<td>2.947</td>
<td>1.471</td>
<td>4</td>
<td>3.5536</td>
<td>Accepted</td>
</tr>
<tr>
<td>6. (30)</td>
<td>In most cases, the blind children who received education in residential schools end up unemployed and frustrated (Oudheusden, 1981)</td>
<td>2.842</td>
<td>1.068</td>
<td>2</td>
<td>9.1577</td>
<td>Accepted</td>
</tr>
<tr>
<td>7. (29)</td>
<td>Special schools have stood the test of time and endurance (Frampton, 1953)</td>
<td>2.789</td>
<td>1.134</td>
<td>2</td>
<td>5.999</td>
<td>Accepted</td>
</tr>
<tr>
<td>8. (11)</td>
<td>The loving mother is the child's worst enemy and unless the child was rescued in time from such a &quot;good home&quot;, there would be a lot of hard work for the teacher (Gardener)</td>
<td>2.789</td>
<td>1.316</td>
<td>2</td>
<td>4.9472</td>
<td>Accepted</td>
</tr>
<tr>
<td>9. (19)</td>
<td>Over years residential schools have upgraded the level of education they impart (Dixit, 1982)</td>
<td>2.737</td>
<td>1.147</td>
<td>3</td>
<td>3.8947</td>
<td>Accepted</td>
</tr>
<tr>
<td>10. (37)</td>
<td>Residential schools have met the demand for their public services and therefore remain the popular choice of vast majority of these people (Frampton, 1953)</td>
<td>2.648</td>
<td>1.108</td>
<td>4</td>
<td>7.5788</td>
<td>Accepted</td>
</tr>
<tr>
<td>11. (23)</td>
<td>Average number of pupils per residential school has increased over the years (Dixit, 1985)</td>
<td>2.632</td>
<td>1.257</td>
<td>3</td>
<td>3.8952</td>
<td>Accepted</td>
</tr>
<tr>
<td>12. (7)</td>
<td>A blind child has a much greater chance of happiness playing with other blind children (Gardener)</td>
<td>2.623</td>
<td>1.257</td>
<td>3</td>
<td>3.8952</td>
<td>Accepted</td>
</tr>
</tbody>
</table>
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2.579 1.305 2 3.8947 Accepted

13. (33) The modern movement to remove blind children from residential schools to regular schools is a monumental mistake (Gardener, 1910)
2.105 1.150 2 9.242 Accepted

14. (58) Integrated education should be adopted from the ninth standard onward only with a provision of residential education till then.
2.105 1.197 2 9.1581 Accepted

Thus the respondents have not clearly supported or rejected 14 variables. They have reflected indifferent attitude towards these statements. 12 out of 14 statements are pro-residential education, whereas only 2 statements are pro-integrated education. Most of these statements reflect extremes view of the respondents in respect of strongly favouring residential education or outrightly rejecting integrated education. Thus most of statements which are bold narrations of advantages of residential education or disadvantages of integrated education have been excluded from the further statistical analysis as the null hypotheses in these cases has been retained.

11.6 Statistical Analysis of Variables:

The remaining 50 variables for which the null hypotheses has not been retained, signifying either a strongly favourable or a strongly unfavourable attitude toward the proposition, have been selected for further statistical analysis.

Based on the statistical output of frequency tables, mean and standard deviation, the remaining 50 variables (statements) have been arranged in the declining order of the arithmetical mean (Table 4.14). All the statements having mean between 4 to 5 (agree to strongly agree categories) with standard deviation of less than 1.000 and mode of 4 to 5 have been considered as the most preferred variables. In other words 14 statements have been rated by the leading educators as the most preferred variables pertaining to education of the visually handicapped.

Similarly all the statements which have been assigned arithmetic mean of less than 2.50 and mode of 1 or 2, have been considered the least preferred variables. In other words, the leading educators have rejected these statements outrightly.

Table 4.14

<table>
<thead>
<tr>
<th>S.N. (Statement No.)</th>
<th>Statement (Author)</th>
<th>Statistical Results: Mean</th>
<th>S.D.</th>
<th>Mode</th>
<th>Chi-Sq</th>
<th>Ho</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. (10)</td>
<td>Integrated education enables a blind child to feel that he is an integral part of the family (Burritt, 1924)</td>
<td>4.579</td>
<td>0.507</td>
<td>5</td>
<td>29.6842</td>
<td>Rejected</td>
</tr>
<tr>
<td>2. (24)</td>
<td>Under integrated education, sighted child obtains a better understanding of a blind's capacity (Fazelbhoy, 1982)</td>
<td>4.421</td>
<td>0.607</td>
<td>4</td>
<td>23.8945</td>
<td>Rejected</td>
</tr>
</tbody>
</table>
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3. (64) Emphasis should be placed on the needs of the blind children for special instructions and for independence rather than on administrative convenience (Bourgeault, 1970)
4.421 0.769 5 24.4209 Rejected

4. (51) Integrated education is more a matter of necessity than luxury (Ballun, 1990)
4.316 0.582 4 25.999 Rejected

5. (63) Educational programme should be fitted to the child, and not the child to the programme (English Plan, 1952)
4.316 0.582 4 18.4525 Rejected

6. (26) Integrated education is literally the only hope for thousands of blind children in developing countries (Kenmore, 1985)
4.263 0.991 5 18.1051 Rejected

7. (22) Integrated education also helps in universal enrolment and retention of blind children in education programme (Premlatta, 1988)
4.211 0.535 4 32.3156 Rejected

8. (14) Blind children under integrated education have their full share of family life along with their family members (Fazelbhoy, 1959)
4.158 0.765 4 22.89198 Rejected

9. (35) Every blind child, however, can not be educated in a regular school (Fazelbhoy, 1959)
4.105 1.049 5 17.221 Rejected

10. (26) Interaction can enhance the self esteem, confidence and social skills of students with special needs and promote understanding and acceptance of students without special needs (Shore, 1986)
4.053 0.524 4 35.999 Rejected

11. (50) Since handicapped children are eventually expected to live in society, their education should necessarily be provided within the framework of ordinary rather than residential schools (Ozoji, 1990)
4.053 0.780 4 20.7367 Rejected

12. (38) Integrated education for the developing countries is not a matter of option but a compulsion (Stein, 1985)
4.000 0.816 4 30.7368 Rejected

13. (59) The national policy on education emphasizes the need for encouraging integrated education. It also recognizes supporting residential education for children with specific problems.
4.000 0.816 4 39.7367 Rejected

14. (54) Integrated education would be best for the majority of blind children but the residential schools should be maintained for blind children where integrated education did not exist or where these children could not be educated (Ohio Report, 1950)
4.000 0.816 4 30.3369 Rejected

15. (46) The residential schools can never, by themselves, cover more than the margin of the problem of inadequate educational facilities for the blind in India (Wilson, 1963)
3.895 0.737 4 45.405 Rejected
16. (20) Integrated education is practical, logical, educationally sound and can be accomplished at minimum cost (Bourgeault, 1970)

17. (55) In place of setting up more residential schools, it is desirable that these schools should function as centres to prepare visually handicapped children for integration.

18. (34) Residential schools are quite limited in numbers and support services are painfully inadequate (Bowman, 1985)

19. (36) Residential schools function as islands and are woefully ill-equipped to fulfill the expected role (Saxsena, 1982)

20. (42) Most of developing countries visualize integrated education as an expedient measure to reinforce efforts to improve access to school as a part of universalization of education (Jangira, 1985)

21. (2) Education of the handicapped in a residential school is very costly (Plan of Action, 1986)

22. (39) Important gains of residential education will be in consistency of management which is of particular value for more severely handicapped pupils (Cropp, 1985)

23. (61) It is not only possible, but entirely feasible to correlate work of residential schools and integrated education (W. R. Dry, 1948)

24. (52) Getting blind children accepted in urban schools proves more difficult than rural regular schools (Fazelbhoy, 1990)

25. (48) Early intervention and pre-school education programmes are inadequate in residential schools (Jangira, 1989)

26. (62) Isolation of residential schools and considering them as competitive to integrated education are areas of major concern (Jangira, 1989)

27. (16) Integrated education improves vocational opportunities for the blind (Bourgeault, 1970)

28. (47) Special schools have depicted the survival power (Frampton, 1953)

29. (18) Transferring of knowledge is less of a problem in an integrated education programme because the child is being trained in his home (Horton, 1988)
30. (53) As to educational environment, for the purposes of acquiring knowledge and modes of making livelihood, I think residential education has the advantage, for the purposes of learning the art of living, I think integrated education has the advantage (Oliphant, 1912)

31. (27) Average number of trained teachers in the residential schools has increased significantly over the years (Dixit, 1982)

32. (40) Integrated education is more attractive, acceptable and salable to supporting public and to the government fiscal authorities (Bernardino, 1963)

33. (44) Special schools can be compared with Ghettos (Stein, 1990)

34. (21) Providing the children with braille books is one of the most serious problems under integrated education (Abbott, 1910)

35. (32) Students coming out of residential school are totally unprepared for life (Ahuja, 1980)

36. (43) 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 (Fazelbhoy, 1959)

37. (60) Though better facilities are available in the residential schools, remedial instructions are provided better under integrated education (Rai, 1982)

38. (13) There will 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, to be taken out of these homes (Pearse, 1912)

39. (6) A blind inmate of a residential school generally develops a tendency of hostility which is later manifested into aggressive behaviour (Mathur, 1985)

40. (41) Integrated education is largely experimental after almost 90 years in the USA (35 years in case of India) (Frampton, 1953)

41. (57) Special school is a part of that stream into which it channels the pupils who have become adjusted, and from which it receives those who need residential training or temporary adjustment (Lowenfeld, 1946)
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42. (15) Percentage-wise the number of blind children in the USA enrolled in the residential schools has not appreciably changed over the years (Frampton, 1953)
2.737 0.933 2 12.3156 Rejected

43. (31) The graduates of the residential schools have emerged in a wide range of competitive jobs in a sighted world - a living testimony of the success of the residential schools (Frampton, 1953)
2.737 0.991 2 10.2104 Rejected

44. (5) Like seeks like and there is little common between the blind and the sighted in the methods of education (Fricker)
2.316 1.157 2 11.2631 Rejected

45. (12) Many misconceptions are destroyed when there is a close contact between the blind and the sighted children (Fazelbhoy, 1989)
2.263 0.991 5 19.684 Rejected

46. (17) The percentage of schools providing integrated education has declined from 84% during 1972 to only 50% during 1982 (Dixit, 1982)
2.263 1.098 1 5.9997 Rejected

47. (3) If the government were to apply all these special methods and appliances that are required to give the blind an education at various places all over the country, 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 (Sibley)
2.158 0.958 2 9.6842 Rejected

48. (56) Integrated education may better be confined to partially sighted and specially organized and equipped schools should cover the totally blind (Van Cleve)
2.105 0.658 2 34.7442 Rejected

49. (9) Teaching a blind child requires extra care, time and patience, and it can not be done in a class for the sighted without retarding the general progress of the class (Gardener, 1910)
2.105 1.049 2 15.5148 Rejected

50. (25) Most blind children educated under integrated education are friendless, socially inept and academic failures (Webster, 1989)
1.632 0.831 1 20.7366 Rejected

12. Results

Based on the statistical analysis of the rating of the remaining 50 variables by 19 leading educators of the visually handicapped, the following observations may be made:

12.1 The Integrated Education Enhances Social Integration of a Blind Child:

This observation is based on the evaluation of statements that integrated education enables a child to feel an integral part of family (mean 4.579); integrated children have full share of family life (mean 4.158); integration enhances self esteem, confidence and social skills (mean 4.053).

The enhancements in social integration through integrated education has also been reflected while
Chapter IV Views of the Educators

evaluating statements pertaining to residential education resulting into isolation of inmates of the residential schools. The students of residential schools are unprepared for life (mean 3.263); an inmate of a residential school generally develops a tendency of hostility (mean 3.211); most children educated under integrated education are friendless, socially inept and academic failures (mean 1.632).

12.1.1 Social Integration: The evaluation of these statements generally reflects that the leading educators generally feel that the integrated education has inbuilt advantage of enhancing better social integration as compared to residential schools. In-depth study reveals that even the most staunch supporters of the residential education have endorsed this view. It is reflected from the fact that the statement "Integrated education enables a child to feel that he is an integral part of the family" has been assigned mean value of 4.579 with standard deviation of 0.507 and mode of 5. This statement has been assigned the highest mean with the least standard deviation and mode value which signifies 'strongly agree' on the rating scale.

The respondents have also supported the statement that as visually handicapped children are eventually expected to live in society, it is necessary to provide education in the integrated set up rather than in a residential school. This statement has been rated as "agree" with the mean of 4.053 and the mode of 4.

This statement also signifies that the integrated education is essential for enhancing social integration and social acceptance. In other words, the residential system of education would result into isolation of inmates leading to restricted social integration and social acceptance.

The respondents have also pointed out limitations of residential education in this respect. The statement that the residential schools function as islands has been adequately supported with mean of 3.759, standard deviation of 0.787 and mode of 4. Even the staunch supporters of residential education have pointed out this limitation of such education.

12.1.2 Acceptance of a Blind Child: Similarly the statement that 'integration enhances understanding of a sighted child of a visually handicapped child's capacity' has been accorded second highest mean of 4.421 with low standard deviation of 0.607 and mode of 4 which signifies 'agree' on the rating scale. This variable signifies better acceptance of a visually handicapped child which in turn leads to effective social integration.

12.1.3 Role of Mother: The statement which is antithesis to social integration that "Mother is the child's worst enemy and unless the child was rescued in time from home, there would be a lot of hard work for the teacher" has been completely rejected by the respondents as they have accorded mean of 2.737 and mode of 2 only. Thus respondents have discarded the statement which discounts the role of mother and home in process of integration.

The null hypotheses in this case has been retained which signifies that there is no evidence of either strongly favourable or a strongly unfavourable attitude toward the proposition. The retention of the null hypotheses signifies that the statement is neither strongly accepted or rejected by the respondents and hence does not lead to any definite conclusion. The above noted observation is based on normative analysis.

12.1.4 Transferring of Knowledge: Alternatively the statement that transferring of knowledge in integrated education is less of a problem as a child is being trained at home has been supported by the respondents with a mean of 3.421 and mode of 4. Thus the leading educators consider home as an advantage and not a limiting factor.
12.1.5 Summary: Integrated education has inbuilt advantage of enhancing social integration and social acceptance. It enables a child to feel an integral part of family and have full share of family life. It enhances self esteem, confidence and social skills of the child. As he is eventually expected to live in the community, it is essential to provide education in the integrated set up rather than in a residential school.

12.2 Needs of a Child More Important than the System of Education:

The second major observation of the leading educators is that emphasis should be placed on the needs of the children rather than administrative convenience. This statement has been accorded mean value of 4.421 with standard deviation of 0.769 and mode of 5 which signifies 'strongly agree' on the rating scale. The other statement "educational programme should be fitted to the child, and not the child to the programme" which has been accorded mean of 4.316, mode of 4 and standard deviation of 0.582 also supports this contention.

12.2.1 No Compartmentalization of Education: The respondents have rejected the statement suggesting compartmentalized approach to different modes of education. The statement that integrated education may better be confined to partially sighted and residential education to totally visually handicapped has been accorded mean of 2.105 and mode of 2 with standard deviation of 0.658 which signifies 'disagree' on the rating scale.

Similarly, the suggestion that the integrated education should be adopted from the ninth standard onward has been summarily rejected with a mean of 2.105, mode of 2 and standard deviation of 1.197 with signifies 'disagree' on the rating scale. The statement has, however, been excluded from the statistical analysis as the null hypotheses has been retained.

The leading educators in India thus support child-centered individual need based approach rather than adopting a blanket mode of education irrespective of child’s need.

Table 4.15

<table>
<thead>
<tr>
<th>Pearson Coefficient of Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statements</td>
</tr>
<tr>
<td>56</td>
</tr>
<tr>
<td>58</td>
</tr>
<tr>
<td>63</td>
</tr>
<tr>
<td>64</td>
</tr>
</tbody>
</table>

The coefficient of correlation reflects a high positive correlation between variables 56 & 58, and 63 & 64. This reflects high positive correlation between compartmentalization of mode of education in respect of extent of blindness and the class from where the integration should start. Both the variables have coefficient of correlation of 0.479 which signifies high positive correlation. It is pertinent to mention that both the variables have been rejected by the respondents. Thus the compartmentalization of education irrespective of needs of children does not find favour with the educators.

12.2.2 Individual Need Based Education: The variables pertaining to selection of the mode of education according to extent of blindness and individual needs of the children also have high positive
correlation of 0.488. Thus both the aspects of nature of blindness and needs of children have inter-dependence. The variable of adopting the type of education depending upon the extent of blindness has been rejected. Whereas fitting the education programme to the child and not the child to the education programme has been accepted by the respondents. It leads us to the conclusion that while these two variables have high correlation, the respondents have recommended individual need based system of education.

Similarly the variable pertaining to needs of visually handicapped children and fitting the programme to the child have high positive correlation \( r = 0.437 \). In reality both these variables signify that the programme should be individual need based. Under ideal circumstances, the coefficient of correlation in this case should be in the proximity of 1. In fact both the statements mean the same thing. In the mean analysis, both the statements have been rated at almost the same level of 4.421 and 4.316. The difference between the mean is not significant. In both the cases the null hypotheses has not been retained and it signifies strongly favourable attitude of the respondents to the proposition.

This can be easily concluded that the leading educators have accorded very high priority to the fact that the educational programme should be according to felt needs of the individuals and not according to administrative convenience. Similarly, the programme should be fitted to the child and not the child to the programme as is being done at present in case of residential education.

This observation puts the controversy as to "which mode of education is better" at rest. It accords more significance to the individual and his felt needs rather than the mode of education. It imparts primary importance to the needs of the children and secondary importance to the mode of education. Which-so-ever mode fulfills the aspirations of a child and meets his individual felt needs should be promoted and adopted for that particular child irrespective of its other administrative, financial and societal merits or demerits.

12.3 Integrated Education - Not an Option But a Compulsion:

12.3.1 A Compulsion: The leading educators of the visually handicapped have supported the contention that the integrated education is essential and compulsory. There is no scope for choice between integrated education or residential education.

The statement that integrated education is more a matter of necessity than luxury has been accorded mean of 4.316 with mode of 4 and low standard deviation of 0.582 which signifies 'agree' in respect of this statement.

Similarly, another similar statement that Integrated education is the only hope for thousands visually handicapped children has also been rated as 'agree' on the five-point rating scale with a mean of 4.211 and mode of 4.

12.3.2 Universalization of Education: The fourth statement that the integrated education reinforces efforts to improve access to school as a part of universalization of basic education has also been rated as 'agree' with a mean of 3.789 on the rating scale. The respondents consider Integrated education as the only mean of fulfilling the goal of universalization of education which has been enshrined in the Constitution of India. This observation also renders the integrated education as an essential component of the basic education programme.

The fifth statement "integrated education helps in universal enrolment and retention of visually handicapped children in education programme" which has been rated 'agree' with mean of 4.211 and mode of 4 also signifies role of integrated education in promotion of universalization of basic
The observations of the respondents have thus established in clear terms that integrated education in the developing countries is essential, compulsory and needs to be promoted without equating it with other modes of education as a matter of choice. In-depth study reveals that even the most staunch supporters of residential education have considered integrated education as a matter of necessity.

Table 4.16

<table>
<thead>
<tr>
<th>Variables</th>
<th>28</th>
<th>38</th>
<th>42</th>
<th>51</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>0.824</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>0.003</td>
<td>0.159</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>0.618</td>
<td>0.584</td>
<td>0.194</td>
<td>1.000</td>
</tr>
</tbody>
</table>

12.3.3 Only Hope: The statement (28) 'integrated education only is the hope for blind children' has very high coefficient of correlation of 0.824 with statement (38) "integrated education is a matter of compulsion"; and a coefficient of correlation of 0.618 with statement (51) "integrated education is a matter of necessity". Similarly statement (38) "matter of compulsion" has a high positive correlation of 0.584 with statement (51) "a matter of necessity". In other words all the three statements regarding integrated education, 'a matter of necessity'; 'a matter of compulsion'; and 'only hope in developing countries' have a very high positive coefficient of correlation among each other.

Thus the respondents have exhibited a similar pattern of rating these statement. They have supported the contention that integrated is a matter of compulsion as well as necessity and needs to be promoted whole heartedly in the developing countries.

12.4 Co-existence of Both Modes:

The respondents have pointed out the outstanding merits as well as limitations of various modes of education. They have, however, not clearly supported in clear terms any single system of education.

Regarding adoption and promotion of a mode of education, they have supported middle path approach in respect of integrated education and residential schools.

It is evident from the rating of the following statements:

12.4.1 Coverage According to Extent of Disability: The respondents generally agree with the statements that the national policy on education emphasizes the need for encouraging integrated education and supports residential education for children with specific problems. This statement has been given mean score of 4.000 which signifies 'agree' on the rating scale.

12.4.2 Area Specific Coverage: Another similar statement has been accorded the same mean as well as mode value. This statement suggests integrated education for majority of children; and residential education for the areas where integrated education at present does not exist. It suggests continuation of the both modes of education depending upon extent of availability of facilities of
Integrated education in a particular area.

**12.4.3 Complementary Roles:** The respondents have also supported the contention that the residential schools should play a complimentary role to integrated education by functioning as preparatory centres for preparing children for integrated education. This statement has been rated with mean of 3.895 and mode of 4 which signifies ‘agree’ on the rating scale. A similar statement which suggests that it is feasible to correlate the work of residential schools and integrated education has been accorded mean of 3.737 with mode of 4 which signifies co-existence of both modes of education.

**12.4.4 Need for Coordination:** Similarly the respondents have adequately supported the statement that isolation of residential schools and considering them as competitive to integrated education is an area of major concern. The mean of 3.579 and mode of 4 accorded to this statement on the rating scale signifies ‘agree’. Thus the respondents have shown inclination towards adopting such an approach which promotes both modes of education and enhances coordination between these modes.

**12.4.5 Limitations of Regular Education:** The respondents have pointed out various limitations of different modes of education. They have considered integrated education as the only hope for the millions of visually handicapped children in developing countries. They have rated the statement ‘every blind child, however, cannot be educated in a regular school’ with a mean of 4.105 and mode of 5 which signifies ‘strongly agree’ on the rating scale. Integrated education is thus not a panacea for all the children. Thus for a lot of visually handicapped children with other disabilities, classified as multi-handicapped blind; or from the areas where integrated education does not exist; and children who could not be identified and enrolled while young, residential education is still the only option.

**12.4.6 Limited Coverage of Residential Schools:** The respondents have also acknowledged the fact that the residential schools by themselves can never solve more than margin of the problem of inadequate educational facilities for the visually handicapped. They have assigned mean, standard deviation and mode of 3.895, 0.737, and 4 respectively which signifies ‘agree’ on the rating scale. Similarly another statement ‘special schools are limited in number and support services are painfully inadequate’ has also been rated with a mean of 3.842, mode of 4 and standard deviation of 1.119 which signifies ‘agree’ on the rating scale.

The rating of these statements leads us to the conclusion that residential education can never fulfill ever-increasing demand for education. Due to sheer limitation of coverage of children on account of extent of disability and extent of coverage and infrastructure facilities, both the systems of education are essential and need to be promoted simultaneously.

**12.4.7 Specific Advantages:** Both the systems of education have specific advantages. The respondents have considered residential education as more effective in respect of acquiring of knowledge and earning livelihood. Whereas for the purpose of art of living, integrated education scores better. It is, however, possible to enhance quality of education in case of integrated education by providing effective support of resource/itinerant teachers. Similarly social integration in case of residential education can be enhanced by seeking better community participation in the programme.

Residential education has been considered more effective for severally handicapped pupils. The respondents have rejected the statement ‘as residential education has consistency of management, it is more appropriate for severally handicapped’. Whereas such education has been rated as ‘not
effective for early intervention and pre-school education”. Both these statements have been assigned equal mean as well as mode of 3.737 and 4 respectively.

The fact, however, stands that the respondents have preferred ‘Middle Path Approach’ of promoting both the systems of education depending upon needs of children, extent of disability, area-specific approach and desired quality of education.

12.5 Lower Cost of Integrated Education:

There has been lot of controversy regarding cost of various modes of education. This aspect is of greater significance for developing countries where due to limited financial resources, the unit cost of programme decides the extent, level and quality of coverage. In fact, in the developing countries, the allocation of resources for education and welfare services is so meagre that such services have reached only a fraction of the target population.

It was thus considered essential to seek responses of the leading educators regarding their perception of cost effectiveness of various modes of education. Most of the supporters of integrated education have been advocating that integrated education could be accomplished at a much lower cost. However, a large number of other educators have advocated that it was not so if one considered indirect costs of integrated education.

12.5.1 Consistency in Rating: To seek systematic responses regarding this aspect, the respondents were asked to rate a few statements in this respect. The statement which reflects that integrated education can be accomplished at minimum cost has been assigned mean value of 3.895 with standard deviation of 0.809 and mode of 4 which signifies ‘agree’ on the rating scale. Majority of respondents have supported this contention.

The two statements viz. residential education is very costly and expenditure on integrated education is comparatively lower were assigned same mean of 3.789 and same mode of 5 with standard deviation of 1.228 which signifies ‘agree’ on the rating scale. It reflects consistency in rating as regard lower cost of integrated education.

12.5.2 Integrated Education - More Economical: The respondents have thus considered integrated education more cost effective as compared to residential education. Similarly the statement that Integrated education is more attractive, acceptable and salable to supporting public and to government fiscal authorities which has been rated as ‘agree’ on the rating scale, leads us to the conclusion that leading educators consider integrated education as more economical. It is also true for our country as sizable allocation of funds has been made by the Ministry of Human Resource Development for promoting itinerant mode of Integrated education.

Similarly another statement which considers residential schools as comparatively economical has been rejected as the respondents have assigned mean of 2.158, standard deviation of 0.958 and mode of 2 only; while no respondents rated this statement as ‘strongly agree’; 5 of them rated as ‘strongly disagree’.

12.5.3 Similar Cost on Both Modes: Another statement which proposes no significant cost difference between these two modes of education has been rated with mean of 2.947, standard deviation of 1.471 and mode of 4 which signifies ‘indifferent’ on the rating scale. In this case, the null hypotheses has been retained. The retention of the null hypotheses signifies that the statement is neither strongly accepted or rejected by the respondents and hence does not lead to any definite
conclusion. The statement does not reflect any definite sentiments of the respondents. Thus statement has been excluded from the further analysis.

Thus the logic that if the expenditure on resource room, material, salary of teachers and other incidental expenses is considered, the cost difference between the residential and integrated education is not significant does not reflect any definite sentiments of the respondents.

The frequency table of this variable is given below:

Table 4.17

Similar Cost of Education - Frequency Table

<table>
<thead>
<tr>
<th>Scale</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Indifferent</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>Frequency</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

While three respondents rated the statement as 'strongly agree', four rated 'strongly disagree'; six rated 'agree', and five rated 'disagree'. Thus almost equal number of them rated 'agree' and 'disagree' levels of rating scale. As mean of rating is 2.947 with high standard deviation of 1.471, it is justified to consider the overall rating as 'indifferent' with higher tilt towards 'disagree'. Thus the statement which advocates no significant cost difference between two modes of education does not reflect any definite sentiments of the respondents.

12.5.4 Lower Cost on Integrated Education: Thus the logic - if the government were to apply special methods and appliances that are required in case of integrated education; it would be far more expansive than the residential education - has been outrightly rejected by the respondents. In-depth study reveals that even some of the staunch supporters of residential education have not supported this statement.

Table 4.18

Cost of Education - Pearson Coefficient of Correlation

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Difference Not Significant</td>
<td>1000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Costly Special Education</td>
<td>-0.560</td>
<td>1000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integrated Expensive Cost Lower</td>
<td>-0.243</td>
<td>-0.065</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>Integrated Special Education</td>
<td>-0.689</td>
<td>0.610</td>
<td>-0.153</td>
<td>1000</td>
</tr>
</tbody>
</table>
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The above listed statistical information reveals that there is positive high correlation of 0.610 between variable 2 which is 'special education is costly' and variable 4 which is 'integrated education costs lower'. Thus both these variable have been rated in the similar pattern. Thus the leading educators feel that the cost on Integrated education is comparatively lower as compared to residential education.

Similarly variable 1 which is 'cost difference between both systems is not significant' has negative correlation of -0.560 and -0.689 with variables 2 as well as 4 which jointly lead to the conclusion that the cost on Integrated education is lower. Similarly variable 3 which is 'integrated education is expansive' has negative correlation of -0.065 and -0.153 with variable 2 and 4 respectively which collectively mean that the cost on Integrated education is comparatively lower.

The statistical analysis based on Pearson coefficient of correlation establishes beyond doubt that the cost of Integrated education is comparatively lower as compared to the cost of residential education.

12.6 Consistency of Management:

12.6.1 Consistency in Residential Education: The respondents have rated higher consistency of management in case of residential education. The statement of Cropp (1985), "Important gains of residential education will be in consistency of management which is of particular value for more severely handicapped pupils" has been accorded arithmetic mean of 3.737 with standard deviation of 0.991 and mode of 4 which signifies 'agree' on the rating scale.

Similarly, the chi-square value of 18.105 results into rejection of null hypotheses at 0.05 level of significance. It establishes that the respondents strongly favour the proposition that there is higher consistency of management in case of residential education.

As a residential school is a compact socio-technical and economical entity, it has in-built advantage of administrative convenience (Frampton, 1956). The chief manager is able to supervise functioning of each unit effectively and regularly. An informal management information system, centralized system of decision making and personal methods of communication are adequate and effective. It is possible for the chief manager to maintain close and regular vigil and monitor all the functions viz. finance, personnel, public relations, fund raising, and ancillary or pupil services (Clifford E. Howe).

12.6.2 Integrated Education: Complex Administrative Entity: Whereas in case of integrated education, the beneficiaries are scattered over a vast geographical area, itinerant teachers are most of time travelling, and there are physical institutional boundaries. Thus it emerges as a complex administrative entity. It is, however, pertinent to mention that if integrated education is considered at par and in consonance with regular education, the logic of unitary command and administrative convenience can be applied in case of integrated education as well.

12.6.3 Quality More Important: The respondents, however, impart greater significance to the individual felt needs of individuals and quality of education rather administrative convenience of the system of education. A very popular statement of Bourgeault (1970), "Emphasis should be placed on the needs of the blind children for special instructions and for independence rather than administrative convenience" has been accorded arithmetic mean of 4.421 with standard deviation of 0.769 and mode of 5 which signifies 'strongly agree' on the rating scale.

The chi-square value of 24.4209 at 0.05 level of significance results into rejection of null hypotheses.
which signifies strongly favouring the proposition. The frequency table (Annexure 9 C) of this variable (64) reflects that 10 out of 19 respondents have rated the proposition as strongly agree; 8 as agree; and only 1 as disagree. Thus almost all the respondents excepting have strongly favoured the proposition that quality of education is more important that the administrative convenience.

12.7 Quality of Education:

The educators have raised doubts about the quality of residential as well as integrated education. The general feeling is that quality of education needs to be improved in both the modes.

12.7.1 Inadequate Services: The proposition of Bowman (1985), "Special schools are quite limited in numbers and support services are painfully inadequate" has been accorded mean of 3.842 and mode of 4 which signifies 'agree' on the rating scale. The null hypotheses also stands rejected at 0.05 level with a chi-square value of 15.4734. Thus respondents strongly favour the statement that support services at residential schools are inadequate.

The respondents have also supported Saxena's (1982) statement that special schools function as Islands and are woefully ill-equipped to fulfill the expected role. They also feel that early intervention and pre-school education programmes are inadequate in residential schools (Jangira, 1989). In both these cases, rating is as 'agree' and the null hypotheses stands rejected which signifies favouring the statements.

Similarly, the respondents have also rated performance of integrated education in respect of providing the children with braille books as dissatisfactory. They have also supported statement of Fazelbhoy (1959) that every blind child, however, can not be educated in a regular school. The statement has been accorded a mean value of 4.105 and mode of 5 which signifies 'strongly agree' on the rating. The rejection of null hypotheses at 0.05 level with chi-square of 17.221 also supports the contention that the respondents strongly favour the proposition.

12.7.2 Specific Advantages: Integrated education has the advantage of enhancing vocational rehabilitation. This proposition (16) with a mean of 3.526 and mode of 4 finds favour with the respondents. The rejection of null hypotheses also signifies favouring the contention.

Whereas residential education scores better in braille, music and crafts etc. The respondents support the statement which reflects specific merits of both the modes, "As to educational environment, - for the purposes of acquiring knowledge and modes of making livelihood, I think residential education has the advantage, - for the purposes of learning the art of living, I think integrated education has the advantage" (Oliphant, 1912). There is, however, scope for improving the quality of education further in case of both the modes of education.

12.8 Tendency to Support integrated Education:

The in-depth analysis of pattern of evaluation of various statements by the respondents reflects a tendency of supporting integrated education. The respondents have generally assigned lower scores to a variety of statements supporting residential education on various grounds. Similarly certain revolutionary statements (Table 4.13) which reflect extremes of either mode of education have generally not been supported. Most of these statements have been excluded from the analysis as the null hypotheses of no divergence between strongly favouring or not favouring such propositions has been retained.
12.8.1 Rejection of Pro-Residential Education Statements: The respondents 'disagree' with the statement of Gardener that the modern movement to remove visually handicapped children from residential schools to regular schools is a monumental mistake. The statement has been assigned mean of 2.105 with standard deviation 1.150 and mode of 2 only. The chi-square value of 9.242 results into retention of null hypotheses which signifies that the proposition is neither strongly accepted or rejected by the respondents and hence does not lead to any definite conclusion.

The frequency table is reflected below:

Table 4.19

<table>
<thead>
<tr>
<th>Score</th>
<th>Rating</th>
<th>Frequency</th>
<th>% Total</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly Disagree</td>
<td>6</td>
<td>31.6%</td>
<td>31.6%</td>
</tr>
<tr>
<td>2</td>
<td>In-Disagree</td>
<td>9</td>
<td>47.4%</td>
<td>79%</td>
</tr>
<tr>
<td>3</td>
<td>InDIFFERENT</td>
<td>1</td>
<td>5.3%</td>
<td>84.3%</td>
</tr>
<tr>
<td>4</td>
<td>Agree</td>
<td>2</td>
<td>10.4%</td>
<td>94.3%</td>
</tr>
<tr>
<td>5</td>
<td>Strongly Agree</td>
<td>1</td>
<td>5.3%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Mean: 2.105
S.D.: 1.046
Mode: 2

Chi-square: 9.242  Ho retained at 0.05 level

The normative analysis reflects that 31.6 per cent of the respondents 'strongly disagree' with the statement. Another 47.4 per cent respondents 'disagree' with the statement. Thus 79 per cent respondents have completely rejected the statement. In other words, only 15 percent respondents have found certain merits in the statement.

As the statement has been assigned mean of 2.105 with mode of 2 which signifies 'disagree' on rating scale, it may be concluded such a bold pro-residential education statement does not find favour with the leading educators of the visually handicapped in the country and it does not reflect any definite sentiments of the respondents.

12.8.1.1 The other pro-residential education statements which have been rejected by the respondents are listed below.
Table 4.20
Rejected Statements

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Statement</th>
<th>Mean</th>
<th>S.D.</th>
<th>Mode</th>
<th>Signifies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>(9) Teaching a child requires extra care, time and patience which which cannot be done under Integrated education.</td>
<td>2.105</td>
<td>1.049</td>
<td>2</td>
<td>Disagree</td>
</tr>
<tr>
<td>2.</td>
<td>(17) Percentage of schools providing Integrated education has declined</td>
<td>2.263</td>
<td>1.098</td>
<td>1</td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>3.</td>
<td>(5) Like seeks like and there is little common between the blind and the sighted In the methods of education.</td>
<td>2.316</td>
<td>1.157</td>
<td>2</td>
<td>Disagree</td>
</tr>
<tr>
<td>4.</td>
<td>(31) Students of residential schools have emerged In a wide range of competitive jobs.</td>
<td>2.737</td>
<td>0.991</td>
<td>2</td>
<td>Disagree</td>
</tr>
<tr>
<td>5.</td>
<td>(15) Percentage wise the number of blind children enroled in residential schools has not changed over years.</td>
<td>2.737</td>
<td>0.933</td>
<td>2</td>
<td>Disagree</td>
</tr>
</tbody>
</table>

12.8.1.2 The other pro-residential education statements in which case the null hypotheses has been retained (Table 4.13) and the same been excluded from the statistical analysis are listed below.

Table 4.21
Excluded Statements

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Statement</th>
<th>Mean</th>
<th>S.D.</th>
<th>Mode</th>
<th>Signifies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>(23) Average number of pupils per residential school has increased over the years.</td>
<td>2.632</td>
<td>1.257</td>
<td>3</td>
<td>Disagree</td>
</tr>
<tr>
<td>2.</td>
<td>(37) Special schools have met the demand and remain a popular choice.</td>
<td>2.648</td>
<td>1.108</td>
<td>4</td>
<td>Disagree</td>
</tr>
<tr>
<td>3.</td>
<td>(19) Special schools have upgraded their level of education</td>
<td>2.737</td>
<td>1.147</td>
<td>3</td>
<td>Disagree</td>
</tr>
<tr>
<td>4.</td>
<td>(29) Special schools have stood the test of time &amp; endurance</td>
<td>2.842</td>
<td>1.068</td>
<td>2</td>
<td>Disagree</td>
</tr>
</tbody>
</table>

The rating of these nine statements reflects that the leading educators have generally rejected the arguments of experts abroad justifying existence and growth of residential schools. Most of these statements have been made by staunch supporters of residential education explaining merits of such education.

12.8.2 Rejection of Arguments of Frampton: In-fact the arguments of Frampton and Kerney advanced in their publication (1953) 'The Residential School - Its History, Contribution and Future'
Justifying existence, contribution and growth of residential education on the basis of following standards, have not found favour with the leading educators of the visually handicapped in India:

1. Time and endurance
2. Social adaptation
3. Demand, and
4. the Product

All the statements of Frampton justifying existence and growth of residential education on the basis these criteria have been either rated 'disagree' or reflected no definite sentiment of the respondents. Almost all the arguments based on these four standards have been completely turned down by the respondents.

Similarly the famous and well published argument of Fricker regarding 'like seeks like' has been assigned a very low preference by the respondents. Similarly the argument that the residential education has a definite edge over the integrated education in terms of extra care, adequate time and patience has been outrightly rejected in the present study.

The low rating of above noted 5 and exclusion of 4 pro- residential education statements clearly reflects that the respondents have reflected a tendency of supporting integrated education.

12.8.3 Indifferent Attitude: The respondents have rated a few statements which are generally pro-residential education as indifferent. This is largely due to the fact that the general opinion of the respondents regarding these statements is equally divided. It is generally difficult to draw any definite conclusion from evaluation of these statements. It is, however, pertinent to mention that the tilt is more towards integrated education.

<table>
<thead>
<tr>
<th>S. N. ment No.</th>
<th>Statement</th>
<th>Mean</th>
<th>S.D.</th>
<th>Mode</th>
<th>Signifies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. (43)</td>
<td>Integrated education is largely experimental</td>
<td>3.054</td>
<td>0.970</td>
<td>4</td>
<td>Indifferent</td>
</tr>
<tr>
<td>2. (13)</td>
<td>There will always be children whose homes are such that they need to be taken out of these homes.</td>
<td>3.211</td>
<td>1.134</td>
<td>4</td>
<td>Indifferent</td>
</tr>
<tr>
<td>3. (60)</td>
<td>Though better facilities are given in residential schools, remedial instructions are better in integrated education</td>
<td>3.211</td>
<td>1.032</td>
<td>4</td>
<td>Indifferent</td>
</tr>
<tr>
<td>4. (43)</td>
<td>Learning with sighted children imposes strain on a blind child who may find himself sidelined.</td>
<td>3.263</td>
<td>1.046</td>
<td>4</td>
<td>Indifferent</td>
</tr>
</tbody>
</table>

In case another pro-residential statement number 45 "It is better to be 'ordinary' in a residential school then to be 'special' in an ordinary school" which has been rated indifferent with a chi-square value of 5.999, the null hypotheses has been retained at 0.05 level. It signifies no definite response of leading educators to this proposition.

All these statements which are generally pro-residential education have been rated 'indifferent' on
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the rating scale. The sentimental argument of Kathleen (1978) that it is better to be ordinary in a residential school than to be 'special' in an ordinary school does not find any definite response. As mentioned earlier the respondents have emphasized a need-based mode of education rather than one which is sentimental oriented.

Similarly supporting residential education on the basis of limitation of homes (Gardener); labeling integrated education merely experimental (Frampton and Kerney, 1953); and considering integrated education a strain on the child have been rated 'indifferent' on the rating scale. These statements have neither been clearly accepted or rejected. The fact, however, stands that the respondents have reflected tendency for supporting integrated education.

13. Conclusion

Based on secondary sources of information, 28 leading educators of the blind from all over India were identified. A structured questionnaire was mailed to these educators for seeking their responses on various aspects pertaining to education of the blind. The statistical analysis is based on responses of 19 leading educators of the visually handicapped.

13.1 Modes of Education:

Only four modes of education viz. residential, semi-integrated, integrated - resource, and integrated - itinerant are prevalent in the country. Various other modes viz. cooperative plan, cluster model and multi-skilled teacher plan which have been implemented abroad are still not popular in the country.

43 respondents are promoting integrated education, 33 per cent both - integrated as well as residential, and 25 percent residential education exclusively. There is, however, a shift in the preference levels of the leading educators from residential education to semi-integrated education and from itinerant mode to resource mode of integrated education.

13.2 Merits of Residential Schools:

Residential schools have been rated ideal for the education of children with special needs, adult blind and those who come from poor families. These are better equipped for teaching of plus curriculum, vocational training and music. These extend better educational facilities in terms of personal attention of comparatively better trained and experienced staff. These provide access to educational as well as mobility equipment and material.

Residential schools have the advantage of administrative convenience, unity of command, ease of individual supervision and intensive coverage. These are emerging as laboratories for conducting experiments for evaluating latest trends and for developing new concepts. These are suitable for human resource development, carrying out research and for developing new teaching aids and methods.

It is easier to seek public contributions and avail government grants for such schools due to visible charitable nature of such activities and existence of state level grant-in-aid schemes.

Residential education is considered more expensive and less cost effective as compared to integrated education. Similarly, the respondents have negated the contention that these schools have better infrastructure as well as health services. The psychological advantage of better acceptance of blind children among other blind children has not been rated as a merit of residential education.
13.3 Merits of Integrated Education:

The respondents consider better adjustment, family participation, and better acceptance as the principal advantages of integrated education. It facilitates community participation in the education process. It is the only mode for mass coverage of children at a comparatively lower per capita cost. It has the inbuilt advantage of early identification, early intervention, early coverage and early enrolment of blind children.

The respondents have outrightly rejected the contention that quality of teachers under integrated education is better. Similarly, the contention that it is easier to get grant for integrated education does not find favour. They also do not consider it as the only alternative for pre-school education. The administrative inconvenience, difficulty in effective supervision, and scattered nature of beneficiaries are the major impediments in the adoption of this mode of education.

13.4 Coverage:

13.4.1 Population of the Blind: The WHO - NPCB survey (1986-89) establishes that the population of the visually handicapped in India, at the general population level of 800 million, is 11 million, including 85 per cent curable persons. If we consider existing population of 880 million, the estimated population during 1994 should be 13 million. Out of which 11.05 million are curable and the remaining 1.95 million are incurable blind persons.

13.4.2 Residential Schools: According to this study, the number of residential schools in the country ranges between 225 to 250 with enrolment of 10,000 children. The secondary sources of information also corroborate this observation. The national average of 45 children in each residential school is lower as compared to that 54 in Gujarat.

13.4.3 Integrated Education: Considering secondary sources of information as well as findings of the study, it may be concluded that enrolment of blind children under integrated education is 5,000 in the country and 975 in Gujarat.

13.5 Evaluation of Various Modes of Education:

For the purpose of uniform evaluation, Likert 5 point scale has been used. The respondents were asked to evaluate 64 selected statements pertaining to the merits as well as demerits of different modes of education. The statistical tools of arithmetic mean, standard deviation, mode and chi-square test have been used for identifying the most preferred variables and the order of their preference.

Based on the statistical analysis of the rating of these variables, the following conclusions have been drawn:

13.5.1 Importance of Social Integration: Integrated education has inbuilt advantage of enhancing social integration and social acceptance. It enables a child to feel an integral part of family and have full share of family life. It enhances self esteem, confidence and social skills of the child. As he is eventually expected to live in the community, it is essential to provide education in the integrated set up rather than in a residential school.

13.5.2 Needs of the Child: The individual felt needs of a child are more important than the system
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of education. In other words, the system of education should be selected according to the felt needs of a child rather than a child should be fitted to the available system. The leading educators in India support child-centered individual need based approach rather than adopting a blanket mode of education irrespective of child's needs.

13.5.3 Matter of Option: Integrated education is no more a matter of option - it is more or less a compulsion. It is essential, compulsory and needs to be promoted without equating it with other modes of education as a matter of choice. In-depth study reveals that even the most staunch supporters of residential education have considered integrated education as a matter of necessity.

13.5.4 Co-existence: Both modes of education need to co-exist, compliment and support each other. The educators have advocated 'Middle Path Approach' which encompasses promotion of both modes with shift in roles from competitive to complementary to each other. Each systems should also be exploited for promoting the other systems as well. The respondents have preferred promoting both the systems of education depending upon needs of children, extent of disability, area-specific approach and desired quality of education.

13.5.5 Lower Cost: Apart from the advantage of effective social integration, integrated education also has the advantage of accomplishing the task at a comparatively lower cost. It has been clearly spelt out that residential education is costlier as compared to integrated education. The respondents have considered integrated education more cost effective as compared to residential education.

The respondents probably have rated various statements in view of direct costs of the programme which can be directly attributed to the programme. It is pertinent to mention that the opportunity cost of residential education is comparatively higher as the infrastructure and the establishment have been created exclusively for this purpose alone. This renders integrated education more cost effective.

13.5.6 Consistency of Management: The respondents have rated higher consistency of management in case of residential education. It is evident due to unitary command and limited size of the unit of administration. It is, however, pertinent to mention that if integrated education is considered at par and in consonance with regular education, the logic of unitary command and administrative convenience can be applied in case of integrated education as well.

13.5.7 Quality of Education: The educators have raised doubts about the quality of residential as well as integrated education. The general feeling is that quality of education needs to be improved in both the modes. Integrated education has the advantage of enhancing vocational rehabilitation, whereas residential education scores better in braille, music and crafts etc. There is, however, scope for improving the quality further.

13.5.8 Rejection of Bold Statements: The detailed analysis reflects that most of the arguments advanced by the western proponents of residential education have not found favour with Indian educators.

It is evident from the fact that a bold statement by Gardener 'Modern movement to remove visually handicapped children from residential schools to regular schools is a monumental mistake' found only one staunch supporter amongst 19 respondents. Otherwise this statement has been turned down individually and collectively by almost all the respondents.

13.5.9 General Tendency: The study establishes beyond doubt that the educators of the visually handicapped in the country have exhibited general tendency for supporting integrated education. While some of the staunch proponents of residential education have pointed out strengths of
residential education but they have also desired promotion of integrated education.

The study establishes that the general tendency at present is in favour of promoting integrated education. The respondents, however, do not consider integrated education as a substitute to residential education. On the contrary, it is considered as complimentary and supportive to residential education.

13.6 The findings of this study may be summarized as:

"Integrated education is no more a matter of option - it is a compulsion which can be accomplished at a comparatively lower cost and has the advantage of effecting social integration. The focus of the system should be individual felt needs of the children. Considering strengths and roles of both the systems, it is concluded beyond doubt that both modes need to co-exist and compliment the roles of each other. There is, however, a scope for improvement in the quality of both residential as well as integrated education".