Inclusion of Visually Impaired Students in Academics in IED-SS

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Abstract: Inclusive Education (IE) is a new approach towards educating the children with disability and learning difficulties with that of normal ones within the same roof. It brings all students together in one classroom and community, regardless of their strengths or weaknesses in any area, and seeks to maximize the potential of all students. It is one of the most effective ways in which to promote an inclusive and tolerant society. The overall objective of the study is to find out the Inclusion of visually impaired students in Science learning in Inclusive set up in Coimbatore district and differences among them due to age, gender and nature. The present study revealed that there are significant differences in Science learning skill due to gender and nature. The present study also reported that the totally blind children and Boys showed independency in achieving Science learning skills.

1. Introduction

Inclusive education has grown from the belief that education is a basic human right and that it provides the foundation for a more just society. All learners have a right to education, regardless of their individual characteristics or difficulties. Inclusive education initiatives often have a particular focus on those groups, which, in the past, have been excluded from educational opportunities.

Lynch (2007) cautions that Inclusive Education cannot be considered as a ‘model’ that can be built and delivered in one go. It represents in many ways a vision that stakeholders will constantly strive towards and which will evolve gradually alongside implementation through continuous processes of national debate and reflection. It is known that 73 million children of primary school age were out of school in 2010, down from a high of over 110 million out-of-school children in the mid-1990s, according to new estimates by the UNESCO Institute for Statistics (UIS). About Eighty percent of Indian population lives in rural areas without provision for special schools. It means, there are an estimated 8 million children out of school in India (MHRD 2009 statistics), many of whom are marginalised by dimensions such as poverty, gender, disability, and caste.

Objective of the study
1) To identify the visually impaired students studying in Inclusive education.
2) To assess the academic skill of the visually impaired students in Inclusive education.

2. Methodology

Selection of appropriate methodology provides clear direction to the researcher with regard to the various steps to be followed in carrying out the research successfully. The deliberate choice of a design increases the likelihood that the will yield information on the research question (Barr, 2004).

Research is a scientific and systematic and search pertinent information on a specific topic. So research methodology is a way to systematically solve the research problems. Research is essentially an investigation of recording and analysis of evidence for the purpose of gaining knowledge.

The study aims to explore the Academic Inclusion of students with visual impairment in IED-SS. “The survey is in briefly a method of analysis in scientific and orderly form for defined purpose of given social situation of problem or population

In the present study the investigator selected interview” and “Questionnaire” as the most important tools for collecting data.

2.1 Construction of the tool

2.1.1 Interview Schedule

According to Goode and Hatte (2000), “Interviewing is fundamentally a process of social interaction”. The investigator prepared the interview schedule with 12 questions to elicit the family background like Name, Age, Locality, Family type, Members of the family, Qualification and Occupation of the parents of a particular student. The answers given by the student will be recorded by the investigator.

2.1.2 Questionnaire

The Questionnaire was prepared by the investigator. It consists of 52 questions in all subjects of their standards to test their academic skills like Read Chemical Notations in Science, Participation in Laboratory activities, Field trip, Extra-Curricular activities etc. Low vision children were assessed on par with totally blind.

2.2 Selection of the area

The area selected for the purpose of the study was limited to Coimbatore district only. The example selected for the present study consists of 40 students in 5 schools implementing IED-SS programme in and around Coimbatore district.

Table 1: Comparison of Science Learning Skill of Visually Impaired Children based on their Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Science</th>
<th>T</th>
<th>df</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>14-16 Years</td>
<td>Mean</td>
<td>7.60</td>
<td>1.70</td>
<td>20</td>
</tr>
<tr>
<td>17-19 Years</td>
<td>Mean</td>
<td>7.00</td>
<td>1.65</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>Mean</td>
<td>7.30</td>
<td>1.68</td>
<td>40</td>
</tr>
</tbody>
</table>

NS- Not Significant

The above table shows that the calculated T – value 1.132 which is lower than the table value of 2.024 at 5 % level of significance. Since the calculated value is lesser than the
table value it is inferred that there is no significant difference among the age groups in the average scores. Hence the hypothesis is accepted.

**Table II:** Comparison of Science learning skill of visually impaired children based on their gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Science</th>
<th>T</th>
<th>df</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D</td>
<td>No.</td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>7.81</td>
<td>1.81</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Girls</td>
<td>6.36</td>
<td>0.84</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7.30</td>
<td>1.68</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>

** - Significant at 1% level

The above table shows that the calculated $T$ - value 2.824 which is higher than the table value of 2.712 at 1% level of significance. Since the calculated value is higher than the table value it is inferred that there is significant difference between the boys and girls in the average scores. Hence the hypothesis is rejected. From the table it is inferred that the boys showed independency in science learning.

**Table III:** Comparison of Science Learning Skill of Children on their Nature

<table>
<thead>
<tr>
<th>Nature</th>
<th>Science</th>
<th>T</th>
<th>df</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D</td>
<td>No.</td>
<td></td>
</tr>
<tr>
<td>Total blind</td>
<td>8.62</td>
<td>1.89</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Low vision</td>
<td>6.67</td>
<td>1.14</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7.30</td>
<td>1.68</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>

** - Significant at 1% level

The above table shows that the calculated $T$ – value 4.053 which is higher than the table value of 2.712 at 1% level of significance. Since the calculated value is higher than the table value it is inferred that there is significant difference between the totally blind and low vision students in the average scores. Hence the hypothesis is rejected. From the above table it is inferred that totally blind showed independency than low vision students.

3. Summary and findings

The findings of the study are as follows

1) The $T$-test was applied to find out whether there is significant difference among the group in the average Science skill scores. The calculated $T$ – value 1.132 which is lower than the table value of 2.024 at 5% level of significance. Since the calculated value is lesser than the table value it is inferred that there is no significant difference among the age groups in the average scores.

2) The $T$-test was applied to find out whether there is significant difference among the group in the average Science skill scores. The calculated $T$ - value 2.824 which is higher than the table value of 2.712 at 1% level of significance. Since the calculated value is higher than the table value it is inferred that there is significant difference between the boys and girls in the average scores. From the table it is inferred that the boys showed independency in science learning.

3) The $T$-test was applied to find out whether there is significant difference among the group in the average Science skill scores. The calculated $T$ – value 4.053 which is higher than the table value of 2.712 at 1% level of significance. Since the calculated value is higher than the table value it is inferred that there is significant difference between the totally blind and low vision students in the average scores. From the table it is inferred that totally blind showed independency than low vision students.

4. Recommendations

The research report’s recommendations are outlined below, and presented thematically.

1) Provide in-service training to all mainstream teachers and primary education advisors on inclusive education.

2) To develop flexible curricula in accordance with individual needs of children, this will allow using different forms and methods of education.

3) To use appropriate and affordable technologies in order to enhance success in the school curriculum.