ABSTRACT

This study was conducted to find out Learning styles of children with hearing impairment at secondary level. The sample consisted of 40 school students from Coimbatore district of Tamilnadu state. Learning styles indicator checklists for children with hearing impaired were used to collect data. The statistical techniques were used the Mean, Standard-Deviation, t-test. The result showed that there exists no significant difference in learning styles of children with hearing impairment at secondary level of Urban and Rural, Boys and Girls, parent’s education students regards to different learning styles.

KEYWORDS

Learning Styles, Children with Hearing Impairment, Secondary Level

Introduction:

Learning styles are a combination of many biological and experientially imposed characteristics that contribute to concentration, each in its own way and all together as a unit. Learning style is more than merely whether a student remembers new and difficult information, most easily by hearing, seeing, reading, writing, illustrating, verbalizing, or actively experiencing; perceptual strength is only one part of learning style. It is also more than whether a person processes information sequentially or analytically rather than in a holistic, simultaneous, global fashion; information-processing style is just one component of style. It is important to recognize not only individual behaviors, but to explore and examine the whole of each person’s inclinations toward learning (Dunn, Thies, & Hognsfield, 2001). Reese and Dunn (2007) surveyed 1500 students in a private metropolitan university using the Dunn and Dunn Learning Style Model. The findings revealed that the students had statistical differences in Sound, Light, Temperature, Motivation, and Responsibility elements. The female students preferred bright, light, warm temperature, formal seating, motivation, and learning alone or with peers. They stated that male students were more visual and needed more structure, mobility, and liked to study in afternoon and also they stated that female students, in general were auditory and kinesthetic.

Rita Flattery: (2010) “Since vision of a deaf person’s primary channel to receive information. Visual aids are a tremendous help. Concerning the hearing impaired students and their learning styles, there are no reliable data. But “Deaf students are inherently visual learners to a varying degree. Because they lack the ability to hear, they rely more on vision to compensate for their lack of hearing. This is called sensory compensation. Rajshree S. Vaishnav Associate Professor Chirayu K. C Bajaj College of Education Nagpur (M.S.), March 2013, conducted study on “Learning Styles And Academic Achievement of Secondary School Students”- This study is an analysis of learning styles prevalent among secondary school students. It was conducted on three learning styles-visual, auditory and kinesthetic (VAK). It also tries to find out relation and effect of different learning styles on academic achievements of students. A sample of 200 students of class 9th, 10th and 11th standard of Maharashtra state was selected for the study. Findings of the study reveal that, kinesthetic learning style was found to be more prevalent than visual and auditory learning styles among secondary school students. There exist positive high correlation between kinesthetic learning style and academic achievement. The main effects of the three variables - visual, auditory and kinesthetic are significant on academic achievement.

Need of the Study:

Learning is acquiring any skill that enriches our life. It occurs by mean of exploration, sharing and instruction. In other word it is the accumulation of experiences, consequential growth and new understanding of the world around us. A person never stops occurring new information. Learning is the process where the individual tend to use all the sense organs. Among the senses, the sense of hearing place a predominant role in the acquisition of information. If that particular sense is blocked he/she need to depend on the other sense organs, this is a major issue faced by the teacher handling children with hearing impairment. The mode of learning preferred by children with hearing impairment is not revealed so far. So this is an obstacle for the teacher to transfer the information. Hence an attempt is made in this direction to know the mode of learning preferred by the children with hearing impairment to facilitate learning.

Statement of the Problem

The statement of the problem is “Learning styles of Children with Hearing impairment at secondary level”. The investigator made an attempt to study on the learning style of Hearing impaired children.

Objective of the Study

The major objectives of the study are to
- Identify the Children with Hearing impairment enrolled in integrated school at secondary level
- Develop the check list to assess the learning style
- Assess the learning style of the Children with Hearing impairment using the developed check list

HYPOTHESIS

- There is no significant difference in the learning styles in children with hearing impairment with respect to Gender
- There is no significant difference in the learning styles in Children with Hearing impairment with respect to Grade
- There is no significant difference in the learning styles in Children with Hearing impairment with respect to Parent’s Education

Delimitation

- The study was limited to only 40 students
The study was limited to only Coimbatore district only
• The study was limited to only Urban and Rural
• The study was limited to 20 boys and 20 girls only.

**METHOD AND SAMPLE OF THE STUDY**
The method of the present study was descriptive survey. The sampling of the present study was consisted of 40 children with hearing impairment at secondary level of Coimbatore purposively selected from urban and rural, boys and girls from each category of children with hearing impairment at secondary level were enrolled.

**TOOLS USED**
Personal data schedule and Memetics Learning Styles Inventory adopted for CWHI

**STATISTICAL TECHNIQUES TO BE USED**
• Mean, S.D. and ‘t’-ratio were computed.

### Learning styles of Children with Hearing impairment with respect to various mode

<table>
<thead>
<tr>
<th>S.NO</th>
<th>Category</th>
<th>NO</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Visual</td>
<td>22</td>
<td>55%</td>
</tr>
<tr>
<td>2.</td>
<td>Verbal</td>
<td>-</td>
<td>0%</td>
</tr>
<tr>
<td>3.</td>
<td>Physical</td>
<td>6</td>
<td>15%</td>
</tr>
<tr>
<td>4.</td>
<td>Logical</td>
<td>-</td>
<td>0%</td>
</tr>
<tr>
<td>5.</td>
<td>Social</td>
<td>12</td>
<td>30%</td>
</tr>
<tr>
<td>6.</td>
<td>Solitary</td>
<td>-</td>
<td>0%</td>
</tr>
</tbody>
</table>

With regard to Learning Styles of Children with Hearing Impairment 55% of the students were Visual learner, 15% of the students were Physical learner and only 30% of the students were Social learner. This shows that majority of them use visual learners. This might be due the usage of colours. In addition they might also have good sense of direction and style.

**Hypothesis 1**
There is no significant difference in the verbal mode of learning style in children with hearing impairment with respect to Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>No</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>‘t’ value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>20</td>
<td>21.8</td>
<td>1.908</td>
<td>38</td>
<td>2.61</td>
<td>*</td>
</tr>
<tr>
<td>Girls</td>
<td>20</td>
<td>20.1</td>
<td>2.2004</td>
<td>38</td>
<td>2.93</td>
<td>*</td>
</tr>
</tbody>
</table>

* Significant at 0.05% level

The ‘t’ value is 2.61 with df 38 for verbal mode of learning in Children with hearing impairment is significant at 0.05% level. The result revealed that both boys and girls were at different level with respect to verbal mode of learning. This may be due to the problems faced by the boys and girls in comprehension on the verbal mode of learning. Hence the null hypothesis stated as "there is no significant difference in the means scores of verbal mode of style in children with hearing impairment with respect to Gender" is rejected.

**Hypothesis 2**
There is no significant difference in the verbal mode of learning style in children with hearing impairment with respect to Grade

<table>
<thead>
<tr>
<th>Grade</th>
<th>No</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>‘t’ value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-9th std</td>
<td>20</td>
<td>21.3</td>
<td>2.2734</td>
<td>38</td>
<td>2.33</td>
<td>*</td>
</tr>
<tr>
<td>6-7th std</td>
<td>20</td>
<td>19.8</td>
<td>1.7651</td>
<td>38</td>
<td>2.93</td>
<td>*</td>
</tr>
</tbody>
</table>

* Significant at 0.05% level

The ‘t’ value is 2.33 with df 38 for verbal mode of learning in children with hearing impairment is significant at 0.05% level. The result revealed that both the class the children with hearing impairment were at different level with respect to verbal mode of learning. This shows that higher the level higher the acquisition of verbal skill. Hence the null hypothesis stated as "there is no significant difference in the means scores of verbal mode of learning style in children with hearing impairment with respect to Grade" is rejected.

**Hypothesis 3**
There is no significant difference in the Verbal mode of learning styles in Children with Hearing impairment with respect to Parent’s Education

<table>
<thead>
<tr>
<th>Parents Education</th>
<th>No</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>‘t’ value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educated</td>
<td>25</td>
<td>20.88</td>
<td>2.2605</td>
<td>38</td>
<td>2.93</td>
<td>*</td>
</tr>
<tr>
<td>Uneducated</td>
<td>15</td>
<td>19.13</td>
<td>1.5055</td>
<td>38</td>
<td>2.61</td>
<td>*</td>
</tr>
</tbody>
</table>

* Significant at 0.05% level

The ‘t’ value is 2.93 with df 38 for verbal mode of learning in children with hearing impairment is significant at 0.05% level. The result revealed that children with hearing impairment different level with respect to verbal mode of learning. This may be due to the level of awareness of educated parents on the important of verbal mode of expression their children as against uneducated parents. Hence the null hypothesis stated as "there is no significant difference in the means scores of verbal mode of learning style in children with hearing impairment with respect to Parent’s Education“ is rejected.

**Major Findings**
• There is no significant difference in the verbal mode of learning style in children with hearing impairment with respect to Gender
• There is no significant difference in the Physical mode of learning style in children with hearing impairment with respect to Gender
• There is no significant difference in the Verbal mode of learning in Children with Hearing impairment with respect to Grade
• There is no significant difference in the Physical mode of learning in Children with Hearing impairment with respect to Grade
• There is no significant difference in the Verbal mode of learning in Children with Hearing impairment with respect to Parent’s Education

**Conclusion:**
Learning styles are a combination of many biological and experientially imposed characteristics that contribute to concentration, each in its own way. Learning style is more than merely whether a student remembers new and difficult information, most easily by hearing, seeing, reading, writing, illustrating, verbalizing, or actively experiencing; perceptual strength is only one part of learning style These research accomplishments have been under taken with the aim of drawing out the Learning Style of children with Hearing impairment at Secondary Level in Inclusive Education. The result revealed that the learning style of children with Hearing impairment in integrated education leads them to process information sequentially or analytically rather than in a holistic, to explore and examine the inclinations toward learning.

**SUGGESTIONS FOR THE FUTURE RESEARCH**
• Learning styles of Children with Hearing Impairment at Higher Education can be carried out.
• The present study recommends to conduct a further research on Learning Styles of Children with Hearing Impairment at Secondary Level in Inclusive Education.
• The study may be carried on the learning styles of Children with deaf blind at secondary level.
• The present study recommends that further study can be conducted in analyzing the impact of parental influence among the children with Hearing impairment in selecting
their mode of learning.

- The present study recommends to conduct a further research on Learning Styles of Children with Hearing Impairment enrolled at Secondary Level in Special Schools.

Reference