Self- Confidence among Dyscalculic Elementary School Students of Shimla District

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Abstract: The main objective of the present study is to compare the Dyscalculic elementary school students on self-confidence in relation to their gender and locality. Null hypothesis were framed in regard to the objective. Investigator administered Self-Confidence Inventory, developed by Dr. Rekha Gupta (2013), to the sample of 60 Dyscalculic school students of 8th class drawn from randomly selected schools of Shimla district. For the comparison of students on self-confidence 2x2 ANOVA was used. No significant differences existed among rural and urban Dyscalculic elementary school boys and girls on self-confidence.

KEY WORDS: Dyscalculia, Self-Confidence, Elementary school students.

I. Introduction

In cognitive science and the pedagogical and neuropsychological fields, different views exist of mathematical learning disorders. Dyscalculia has been defined as a specific mathematical disorder (MLD), where the mathematical ability is far below expected for a person’s age, intelligence, and education. According to Butterworth (2003), a range of descriptive terms have been used, such as developmental dyscalculia, mathematical disability, arithmetic learning disability, number fact disorder and psychological difficulties in mathematics. Pupils with learning disorders may feel uncomfortable in learning situations, unless they are being treated in a way that facilitates their learning.

Self Confidence refers to a person’s perceived ability to tackle situations successfully without leaning on others and to have a positive self-evaluation. The personality pattern is a unified multidimensional structure in which the concept of self is the core or centre of gravity (Breckenridge and Vincent, 1965). Into this structure are integrated many patterns of response tendencies, known as ‘traits’ which are closely related to and influenced by the concept of self. Self –confidence is one such personality trait. The self is a composite of a person’s thought and feelings, strivings and hopes, fears and fantasies, his view of what he is, what he has been, what he might become, and his attitude pertaining of his worth.

Basavanna (1975).”In general terms, self-confidence refers to an individual’s perceived ability to act effectively in a situation to overcome obstacles and to get thing go all right”.

Dyscalculia is a brain based condition that makes it hard to make sense of numbers and math concepts. Some kids with dyscalculia can’t grasp basic number concepts. They work hard to learn and memorize basic number facts. They may know what to do in math class but don’t understand why they are doing it. In other words, they miss the logic behind it. Other kids understand the logic behind the math but aren’t sure how and when to apply their knowledge to solving problems. Now when child struggle with math can be
confusing, especially if he’s doing well in other subjects. This can lead to anxiety and low self-confidence and of course low self-esteem. But parents have the power to change that equation.

II. OBJECTIVES OF THE STUDY

To compare the Dyscalculic elementary school students on self-confidence in relation to their (i) gender; (ii) locality and; (iii) gender x locality.

HYPOTHESIS OF THE STUDY

1. There will be no significant difference among Dyscalculic elementary school students on self-confidence in relation to gender i.e. male and female.
2. There will be no significant difference among Dyscalculic elementary school students on self-confidence in relation to locality i.e. rural and urban.
3. There will be no significant difference among Dyscalculic elementary school students on self-confidence in relation to gender x locality.

III. METHOD AND PROCEDURE

SAMPLE

A sample of 60 Dyscalculic school students of 8th class was drawn from randomly selected schools of Shimla district.

TOOLS USED

In the present study Self-Confidence Inventory, developed by Dr. Rekha Gupta (2013) was used. The inventory was administered on rural and urban Dyscalculic boys and girls of 8th class of randomly selected schools of Shimla district of H.P.

SCORING

A score of one is awarded for a response indicative of lack of Self-Confidence, i.e. for making cross ‘x’ to wrong response to item no’s 2,7,23,31,40,41,43,44,45,53,54,55 and for making cross ‘x’ to right response to the rest of the items. Hence, the lower the score, the higher would be the level of Self-Confidence and vice-versa.

IV. ANALYSIS OF DATA

Self-confidence inventory was scored by converting raw scores to Z scores first. To analyse the data the statistical technique of 2x2 ANOVA was employed. The mean and standard deviations are given below in the Table -1

Table 1

<table>
<thead>
<tr>
<th>Locality (B)</th>
<th>Gender (A)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Rural</td>
<td>49.0</td>
<td>47.07</td>
</tr>
<tr>
<td></td>
<td>9.51</td>
<td>10.46</td>
</tr>
<tr>
<td>Urban</td>
<td>47.27</td>
<td>43.93</td>
</tr>
<tr>
<td></td>
<td>7.40</td>
<td>6.32</td>
</tr>
<tr>
<td>Total</td>
<td>48.14</td>
<td>45.5</td>
</tr>
</tbody>
</table>
Table 2

Complete Summary of Analysis of Variance for A x B Factorial Design

<table>
<thead>
<tr>
<th>Sources of Variance</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F- Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (A)</td>
<td>104.02</td>
<td>1</td>
<td>104.02</td>
<td>1.41</td>
</tr>
<tr>
<td>Locality (B)</td>
<td>88.82</td>
<td>1</td>
<td>88.82</td>
<td>1.21</td>
</tr>
<tr>
<td>A X B</td>
<td>7.35</td>
<td>1</td>
<td>7.35</td>
<td>0.1</td>
</tr>
<tr>
<td>Within</td>
<td>4122.80</td>
<td>56</td>
<td>73.62</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4322.98</td>
<td>59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significant value at 0.01 level of significance at 1/58 df. (Table value = 7.10)

Significant value at 0.05 level of significance at 1/58 df. (Table value = 4.01)

Gender (A)

Table 2 shows that the calculated value of F for studying the difference on self-confidence of adolescents of Dyscalculic elementary school students in relation to gender came out to be 1.41 which is not significant at 0.05 level of significance for 1/58 df. Therefore, the hypothesis stated as," There will be no significant difference on self-confidence of Dyscalculic elementary school students in relation to gender", was accepted.

From this, it may be interpreted that regardless of the levels of locality Dyscalculic elementary school boys do not differ significantly from Dyscalculic elementary school girls on self-confidence.

Locality (B)

Table 2 reveals that F-value for studying the difference on self-confidence of Dyscalculic elementary school students in relation to locality (B) came out to be 1.21. This value is not significant at 0.05 level of significance for 1/58 df. Hence, the hypothesis stated as," There will be no significant difference on self-confidence of Dyscalculic elementary school students in relation to locality," was accepted. It indicates that rural and urban Dyscalculic elementary school students do not differ significantly from each other on self-confidence, irrespective of levels of gender.

Gender x Locality (AxB)

From Table 2, it is evident that computed value of F for studying the difference on self-confidence of Dyscalculic elementary school students in relation to gender x locality (AxB) has come out to be 0.1 which is not significant at 0.05 level of significance for 1/58 df. In the light of this, the hypothesis stated as, "There will be no significant difference on self-confidence of the Dyscalculic elementary school students in relation to gender x locality," was accepted.

From this, it may be said that there is no significant interaction of gender x locality to affect the self-confidence of Dyscalculic elementary school students.

CONCLUSIONS

In the view of foregoing interpretation, following were the conclusions:

1. There was no significant difference on self-confidence of Dyscalculic elementary school students in relation to gender.
2. There was no significant difference on self-confidence of Dyscalculic elementary school students in relation to locality.
3. There was no significant difference on self-confidence of the Dyscalculic elementary school students in relation to gender x locality.
4. The mean scores rural male and as well as for rural female (49 and 47.07) respectively were higher than that of urban males and urban females (47.27 and 43.93). So it can be said that rural males and females showed low self-confidence than urban males and females.
EDUCATIONAL IMPLICATIONS

Following implications may be stated on the basis of the findings:

The present study indicates that the urban Dyscalculic elementary school students significantly feel more confident in comparison to their rural counterparts. For enhancing the self-confidence of rural Dyscalculic elementary school students and bringing them at par with their urban counterparts. Parents should give genuine freedom to their children to perform various activities according to their potentialities and capabilities. They should assign such activities to be performed by these children at their own which will help them to handle varied problems of life themselves.

While in the classroom, the teacher should motivate and inspire the Dyscalculic students to perform activities involving calculations etc. at their own pace and not compare them with the normal students. Every desired action should be reinforced properly.

Policy makers can also make use of the findings of the present study. From findings of the present study we can say that students can learn better by using meta cognitive strategies, hence there is a need to change the teaching methods and strategies adopted in higher secondary level. Text books should be designed by raising meaningful and interesting questions and emphasizing applications and problem solving which can help students to develop self-confidence among them and hence academic achievement. Meta cognitive strategies should be incorporated in text-book. The existing curricula will not be able to cope with the present needs of the students. So the curricula must be modified accordingly.

REFERENCES

8. http://shodhganga.inflibnet.ac.in/bitstream/10603/114826/14/14_main%20findings.pdf