

Role Of Strategies In Overcoming Learning Disabilities In Dyscalculia Among Primary School Students

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Abstract

The primary schools play a vital role in all round development of children. Even in the primary level, more attention has been focused on such concepts such as mathematical scientific, linguistic and social and thereby the children are forced to mug up the content without any consideration to their learning abilities. Most of the teachers fail to understand and find out the learning disabilities of their children at the primary level. The most widely recognized kinds of learning disabilities include issues with reading, writing, math, reasoning, listening, and speaking. While each child experiences difficulty with schoolwork occasionally, if a specific territory of learning is reliably tricky, it may show a learning issue. Learning disabilities are due to hereditary as well as neurobiological factors that change cerebrum working in a way which influences at least one intellectual cycle identified with learning. These handling issues can interfere with learning essential aptitudes, for example, reading , writing as well as math. They can likewise interfere with more significant level abilities, for example, association, time arranging, conceptual thinking, long or short memory and consideration. Realize that learning disabilities can influence a person's life past scholastics and can affect associations with family, friends and in the work environment. Dyscalculia is a condition that influences the capacity to obtain arithmetical aptitudes. Dyscalculia students may experience issues understanding straightforward number ideas, do not have an instinctive handle of numbers, and have issues learning number realities and strategies. Dyscalculia is in this way observed to be particular learning disabilities and requires determination just as help separated from classroom teaching. However, only few studies have been centered around dyscalculia and approaches to conquer it. It is exceptionally fundamental for teachers to embrace creative procedures of teaching to meet the needs of dyscalculia students. The utilization of technique may encourage the process of mathematical exploration in dyscalculia children. To be truly fruitful in maths, one needs to clearly numbers and numerical circumstances.

Key words: Dyscalculia, learning disability. mathematics

INTRODUCTION

The primary schools play a vital role in all round development of children. Even in the primary level, more attention has been focused on such concepts such as mathematical scientific, linguistic and social and thereby the children are forced to mug up the content without any consideration to their learning abilities. Most of the teachers fail to understand and find out the learning disabilities of their children at the primary level. It is a general fact that unless and until the students learn to develop scientific point of view on researching, objectivity through analysis etc. between cannot able to discharge their duties effectively. A good teacher of language and methods may possess qualities like knowledge of subject, good memory, effective teaching for joyful learning

Role Of Strategies In Overcoming Learning Disabilities In Dyscalculia Among Primary School Students

of the students etc. Learning by doing, learning by experience may help the children to develop their comprehension skill so as to apply what they have learned in day to day life. On the other hand learning disability is disorder that affects the manner in which individuals with average or above average intelligent select, retains and expresses information. The effectiveness of strategies paves the way for enhancing the learning among the students of dyscalculia. Strategies play a vital role for the student's academic achievement in reading and mathematical calculations, especially for students with learning disabilities. Learning disabilities refers to critical learning issues in a academic area. It describes a group of disorders characterized by inadequate development of specific academic, language (Reading, writing) and maths. Students who can't peruse and read and write maths can be called learning disabled students

LEARNING DISABILITIES

The most widely recognized kinds of learning disabilities include issues with reading, writing, math, reasoning, listening, and speaking. While each child experiences difficulty with schoolwork occasionally, if a specific territory of learning is reliably tricky, it may show a learning issue. Learning disabilities are due to hereditary as well as neurobiological factors that change cerebrum working in a way which influences at least one intellectual cycle identified with learning. These handling issues can interfere with learning essential aptitudes, for example, reading , writing as well as math. They can likewise interfere with more significant level abilities, for example, association, time arranging, conceptual thinking, long or short memory and consideration. Realize that learning disabilities can influence a person's life past scholastics and can affect associations with family, friends and in the work environment.

DISABILITIES IN MATHEMATICS

There is no single maths disability. Actually, maths disabilities are as shifted and intricate as those related with perusing. Moreover, there are some arithmetic disabilities which can exist independent of an understanding disability and others which don't. One kind of learning disability influencing maths can come from a person's trouble preparing language, another may be identified with visual spatial disarray, while one more could incorporate difficulty holding math realities and keeping systems in the correct request. While amazingly uncommon, there are a few students who can't effectively look at the lengths of two sticks and other people who have basically no capacity to appraise. At last, a few people experience emotional blocks so overpowering as to block their capacity to think dependably and obviously while endeavoring math, and these students are disabled, too.

According Ginsburg and Baroody have distinguished the underlying, natural phases of maths learning as the "casual" stage. A little youngster learns the language of greatness (more, less; greater, smaller) and equality (same) at home, well before schooling begins. In much the same way a child learns to chant the alphabet before knowing how to use it, children learn the counting sequence. This grouping is a sort of melody, they find, and it must go in a specific request.

Mathematics learning disabilities don't regularly happen with clarity and effortlessness. Rather, they can be blends of troubles which may incorporate language handling issues, visual spatial disarray, memory and succession challenges, as well as curiously high tension. With the mindfulness that number related comprehension is effectively developed by every student, we can intercede in this cycle to advocate for or furnish involvement in manipulative, time for investigation, conversation where the "right" answer is immaterial, cautious and precise language, access to helpful technologies, and understanding and support.

MEANING OF DYSCALCULIA

Dyscalculia is a condition that influences the capacity to gain arithmetical aptitudes. Dyscalculia students may experience issues understanding straightforward number ideas, come up short on an instinctive handle of numbers, and have issues learning number realities and strategies. Regardless of whether they produce a right answer or utilize a right technique, they may do so precisely and without certainty. Dyscalculia is a particular and determined trouble in understanding numbers which can lead to a diverse range of difficulties with mathematics. It will be unforeseen according to age, level of training and experience and happens over all ages and capacities.

Maths difficulties are best idea of as a continuum, not a particular class, and they have numerous causal elements. Dyscalculia falls toward one side of the range and will be recognizable from different maths issues because of the seriousness of challenges with number sense, including subitising, symbolic and non-symbolic magnitude comparison, and requesting. It can happen independently yet regularly co-happens with other explicit learning troubles, maths fear and medical condition. (P Jarrett 2019)

DEVELOPMENTAL DYSCALCULIA SYMPTOMS

- High levels of maths tension
- Cannot subitise (the ability to recognize groups of 3/4 without formal mathematical processing)
- Cannot check dependably
- Does not associate number words with their symbols. For example, they do not associate the word 'eight' with the symbol '8'
- Reliance on 'counting-on' strategies: using fingers rather than mental maths strategies
- Writing number digits the incorrect route round reliably
- Difficulty with assessing
- Difficulty setting numbers on a number line. For example, can't distinguish that the number 8 should go between 5 and 10 on a number line
- Inability to tell which of two numbers is bigger
- Cant apply applying + and – signs
- Difficulty working with a pattern
- Confusing signs +, -, x, ÷
- Confusing or not understanding numerical vocabulary
- Difficulty with times tables and mental math
- Difficulty with regular undertakings such as checking change
- Difficulty with understanding tickers

STRATEGIES FOR MANAGING DYSCALCULIA

The following strategies for managing dyscalculia

1. Talk or Write Out a Problem

For the dyscalculia children, math ideas are just modified words, and numbers mere marks on a page. Talking through an issue or writing it in sentence structure can help with seeing connections between the components. In any event, rehashing word problems in another way can help with arranging data and seeing solutions.

Role Of Strategies In Overcoming Learning Disabilities In Dyscalculia Among Primary School Students

2. Draw the Problem

Drawing the issue can likewise assist visual students with seeing connections and get ideas. students can "draw through" the issue with pictures that reflect their understanding of the issue and show approaches to explain it.

3. Separate Tasks into Subsets

Dyscalculia students can without much of a stretch get overpowered by an unpredictable issue or idea, particularly in the event that it expands on prior knowledge which they might not have held. Isolating an issue into its segment parts and working through them each in turn can enable students to center, see connection and avoid over-burden.

4. Use "Reality" Cues and Physical Objects

Relating math to the reasonable items of everyday life can help dyscalculia students sort out ideas and see the connections between numbers. Props like estimating cups, rulers and countable objects that students can control can make math ideas less theoretical.

5. Review Often

Since dyscalculia students battle to hold math-related information, it turns out to be difficult to master new abilities that expand on previous lessons. Short, frequent review meetings consistently, if important help keep information new and relevant to the following new undertaking. Making written or drawn references, such as cards or outlines can help with speedy surveys.

OBJECTIVES OF THE STUDY

1. To identify the level of disabilities such as dyscalculia among primary school children
2. To find out the effectiveness of strategies to overcome the learning disabilities among primary school children
3. To find out the significant difference if any between the pre and post assessment of the dyscalculia of primary school children
4. To find out the correlation relationship between pre and post assessment of the dyscalculia of primary school children

METHODOLOGY

Research Method

The research has used experimental method used in this study

Sample

A sample of 15 students was selected for this study. The sample consist of students of V standard in Karaikudi block, Sivagangai district ,Tamilnadu

Tools

Questionnaire for Pre Test and Post Test

HYPOTHESIS TESTING

Table 1.

The level of disabilities such as Dyscalculia among Primary School Children

Students	Pre test	Post test
Dyscalculia	32%	58%

The table (1) shows that the percentage scores of post test (58%) is greater than the pre test (32%) dyscalculia students. It is found that strategy helps dyscalculia more in their learning achievement.

Table 2

There is no significant difference between the pre test and post test of the Dyscalculia of Primary School Children

Dyscalculia	N	Mean	SD	't'	Level of significance
Pre test	15	15.02	1.37	8.42	S
Post test	15	30.16	4.45		

It is inferred that the table shows that the mean scores of pre test and post test of dyscalculia students. The post test achievement mean score (30.16) is found to be greater than the pre test achievement mean score (15.02). The calculated t value is greater than the table value at 5% level. Hence the hypothesis is rejected. It is concluded that there is significant difference between the pre and post test of Dyscalculia of Primary School Children.

Table 3

There is no significant relationship between pre test and post test of the Dyscalculia of Primary School Children

Dyscalculia	r	Level of significance
Pre test	0.32	S
Post test		

Significant at 0.01 level

From the above table, it is observed that the "r" value between post test score and pre test score (0.32). The calculated 'r' value is greater than the table value. It is concluded that there is significance relationship between pre and post test of the Dyscalculia of Primary School Children

FINDINGS

1. The level of percentage scores of pre test (32%) and post test (58%) dyscalculia students. It is found that strategy helps dyscalculia more in their learning achievement.
2. The post test achievement mean score (30.16) is found to be greater than the pre test achievement mean score (15.02). The calculated t value is greater than the table value at 5% level It is concluded that there is significant difference between the pre and post test of dyscalculia of Primary School Children.
3. The calculated 'r' value is greater than the table value. It is concluded that there is significance relationship between pre and post assessment of the dyscalculia of Primary School Children

CONCLUSION

Dyscalculia is in this way observed to be particular learning disabilities and requires determination just as help separated from classroom teaching. However, only few studies have been centered around dyscalculia and approaches to conquer it. It is exceptionally fundamental for teachers to embrace creative procedures of teaching to meet the needs of dyscalculia students. The utilization of technique may encourage the process of mathematical exploration in dyscalculia children. To be truly fruitful in maths, one needs to clearly numbers and numerical circumstances.

Role Of Strategies In Overcoming Learning Disabilities In Dyscalculia Among Primary School Students

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