



## A STUDY ON LEARNING DISABILITIES AMONG HIGH SCHOOL STUDENTS IN SALEM DISTRICT OF TAMIL NADU

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### ABSTRACT

Learning disability refers to a range of conditions that cause considerable difficulties in learning and using abilities such as listening, speaking, reading, writing, thinking, or mathematics. A learning disability, on the other hand, is frequently attached with other incapacitating conditions (social and emotional disturbance, sensory impairment). The study's population comprises of all students in the eighth and ninth grades from government and private schools in the Salem district. A standardized self-administered open and closed ended questionnaire from Bhargava and Bhardwaj's learning disability battery was employed. After data analysis, results revealed a significant difference between girls and boys students in their learning disabilities. Students' categories also play a significant role in their Dyscalculia and Dyslexia learning disabilities. The mean difference is favor of boys. Hence, it can be inferred that boys possess lower dyscalculia when compared to girls. Gender did not make any significant difference in Dysgraphia, a learning disability. The types of high school students differed significantly in their categories of learning disabilities (Dyscalculia, Dysgraphia, and Dyslexia). At the same time, severe learning disabilities are found in CBSE school students.

**KEYWORDS:** Learning impairment, high schools, listening, speaking, reading, writing, thinking, or mathematics, Dyscalculia, Dysgraphia, Dyslexia.

### INTRODUCTION

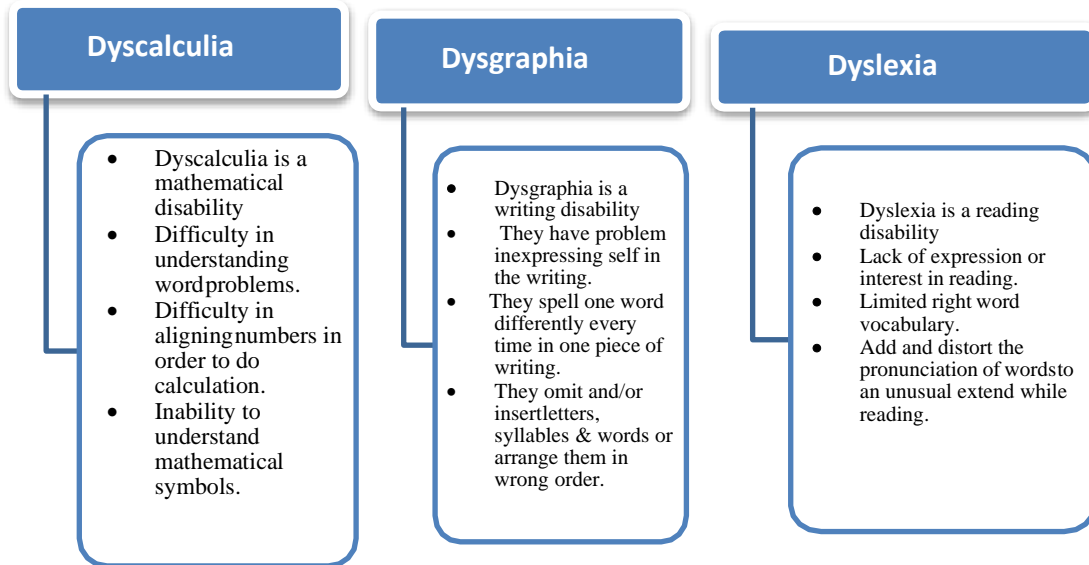
Learning disability is a broad term that refers to several forms of learning difficulties. A learning handicap makes it harder for a person to learn and apply specific abilities. Reading, writing, listening, speaking, reasoning, and mathematics are the most affected. Learning difficulties (LD) differ from one person to the next. A person with a learning handicap may not have the same challenges as another. According to studies, learning difficulties are caused by changes in how the brain acts and processes information.

There is no indication that someone has a learning disability. According to experts, there is a significant difference between how well children perform in school and how well a child can perform based on their intelligence or ability. In addition, some data suggest that the child has a learning problem. Some are listed below. As far as learning problems are recognized in primary school, most are related to primary school tasks. A youngster is unlikely to have all or even most of these symptoms. However, if a child exhibits these symptoms, parents and teachers should investigate if the youngster has a learning disability. The following tasks may pose difficulties for children with learning disabilities: Teachers and parents can assess more if children exhibit unexpected difficulties with reading, writing, listening, speaking, or math. The same is true if a child has difficulty with these skills. A youngster may require evaluation to establish whether or not he or she has a learning problem. When children reach school age, they are evaluated for learning difficulties.

Learning difficulties, in general, refer to a neurobiological problem caused by abnormalities in how the brain functions and is constructed. Furthermore, "learning disability" is a broad term for various learning difficulties. A learning handicap makes it harder for a person to learn and apply specific abilities (Lerner, 2002). Reading, writing, listening, speaking, reasoning, and math are the most affected (Pierangelo & Giuliani, 2006; Heward, 2005; National Outreach Center for Children with Disabilities, 2004;). Learning disabilities (LD) differ from person to person and involve many disorders. Someone with LD may not have the same learning challenges as someone without it.



## SOME SYMPTOMS OF LEARNING DISABILITY



## LEARNING DISABILITY AND RIGHT TO EDUCATION

Overall, the Right to Education Act is a significant step forward because it ensures that all children in our country between the ages of 6 and 14 can now attend school, regardless of their economic status. However, there is fear that it may accidentally cause significant harm to the educational needs of children with learning difficulties. Because no child may be held until the eighth grade, children with learning problems are more likely to be diagnosed too late. School administrators are likely to submit these children to learning disability clinics late or not at all to analyze their poor academic performance. This means that a crucial period for "remedial education" is lost, and these children lose the opportunity to overcome their disability.

In its current form, the RTE Act is unlikely to provide a reason for children with learning difficulties unless accompanied by an amendment making it mandatory to refer children with low marks or grades for learning regardless of their class position. This modification is required to ensure that children with learning disabilities are diagnosed on time. It also guarantees that other causes of poor academic performance, such as ADHD, slow learners, and autism, are detected and handled as soon as possible. Developed countries, such as the United States, which previously introduced compulsory schooling, demand that every child with poor grades be assessed so that a personalized education plan can be established to identify the root problem as soon as feasible. These plans motivate a child to reach his or her full academic potential. Our country can follow suit and change the current RTE Act to assess every child who receives poor grades or has academic issues, determine the causes of poor school performance, and solve them promptly. Because the RTE Act mandates free and compulsory education for all children in India aged 6-14 years, children with learning difficulties' unique learning requirements may no longer be overlooked. In addition, children with learning difficulties should receive a high-quality education and complete it in ordinary mainstream schools.

A learning disability is a heterogeneous collection of severe difficulties in acquiring and employing human abilities such as listening, speaking, reading, writing, thinking, or mathematics. Learning disability is frequently associated with sensory impairment, mental retardation, and social and emotional disturbance; psychological factors such as emotions, maturity, and development; cultural differences; inadequate or inappropriate instruction are also some causes of learning disability in children. It is a combination of those conditions or influences (NJCLD, 1990). According to Samuel Kirk (1963), a disorder or developmental delay affects a specific area, such as reading, spelling, mathematics, and writing, as well as delayed language development.

Learning disabilities are a relatively new and understudied issue in India, with only a few organizations and departments interested in conducting research in this area. The country's education system focuses on "theory" rather than "learning" and is thus unsuitable for pupils with learning difficulties. Examining assessment and preventive concerns in the Indian context is critical due to a lack of indigenous research and the preponderance and domination of Western adaptations in the absence of proper need-based evaluation.



### OBJECTIVE OF THE STUDY

To find the learning disabilities among the high school students in Salem district of Tamil Nadu in the following variables.

- ✓ Gender: Male/Female
- ✓ Types of School: Government / Aided / Metric / CBSE

### HYPOTHESES

- ❖ There is no significance difference between boys and girls in their learning disabilities (Dyscalculia, Dysgraphia, and Dyslexia).
- ❖ There is no significance difference between Government, Aided, Metric, and CBSE students in their learning disabilities (Dyscalculia, Dysgraphia, and Dyslexia).

### METHOD OF RESEARCH

- ❖ The descriptive survey research approach was employed for this study.
- ❖ The study population consists of all students in the 8<sup>th</sup> & 9<sup>th</sup> class from government and private high schools in Salem district of Tamil Nadu.

### SAMPLING METHOD

Two hundred students of eighth and ninth classes from government and private high schools located in rural and urban areas in Salem district were chosen for the study using the random sampling method.

### RESEARCH TOOL

A structured self-administered open and closed-ended questionnaire of the learning disability battery of Bhargava & Bhardwaj was used to compare learning disabilities among early adolescents in government and private schools. Demographic variables like gender and caste were used. The questionnaire consisted of three parts, i.e., part 1, part 2 and part 3. Part 1 consisted of questions related to dyscalculia, part 2 consisted of questions related to dysgraphia, and part 3 consisted of questions related to dyslexia. The scoring procedure of these questions was done according to the manual of the learning disability battery of Bhargava, Bhardwaj.

### Procedure

The investigator obtained permission from the headmasters of high schools and fixed the programme. Before conducting the test, students were told in detail about the study. All the students voluntarily participated in this program. The question papers were distributed to the students, who were asked to submit the filled-in answer sheets. A maximum of 50 minutes is given to the students to provide answers to the questions on the question paper itself. The collected data were entered into an SPSS database and analyzed. The mean, cross-tabulation, standard deviation, t-tests, and ANOVA were used for the data analysis.

### DATA ANALYSIS

The hypotheses formulated for the present investigation have been verified using different statistical techniques. Mean scores and Standard Deviations were calculated for different groups of students. t-test and F test were calculated to know whether there is any significant difference in the learning disabilities of different student groups for the present study.

### Hypotheses-1

There is no significance difference between boys and girls in their learning disabilities (Dyscalculia, Dysgraphia, and Dyslexia).

**Table 1 showing the significant differences in the Learning Disabilities (Dyscalculia, Dysgraphia, Dyslexia) of different groups of high school students**

LD		Group	N	Mean	SD	"t"
Gender	Dyscalculia	Boys	97	24.27	8.23	2.054*
		Girls	103	21.92	7.97	
	Dysgraphia	Boys	97	50.78	12.56	0.343 <sup>NS</sup>
		Girls	103	50.19	11.72	
	Dyslexia	Boys	97	12.85	7.94	2.219*
		Girls	103	15.36	8.05	

\* Significant at 0.05, NS- Not significant



**Interpretation**

Table 1 indicates that the calculated 't'-value (2.054) is greater than the table value of 1.96. Therefore, it is significant at the 0.05 level. Hence, the null hypothesis is rejected. So, it can be stated that the gender of students differed significantly in their learning disability (dyscalculia). The mean difference (2.35) is in favour of boys. Hence, it can be inferred that boys possess lower dyscalculia when compared to girls. Table 1 shows that the calculated 't'-value (0.343) is less than the table value of 1.96. Therefore, it is not significant at the 0.05 level. Hence, the null hypothesis is retained. It can be inferred that the gender of high school students does not significantly affect their learning disability (Dysgraphia). Table 1 indicates that the calculated 't'-value (2.219) is greater than the table value of 1.96. Therefore, it is significant at the 0.05 level. Hence, the null hypothesis is rejected. So it can be stated that the gender of students differed significantly in their learning disability (dyslexia). The mean difference (2.51) is in favour of girls. Hence, it can be inferred that boys possess lower dyslexia when compared to girls.

**Hypotheses-2**

There is no significance difference between Government, Aided, Metric and CBSE students in their learning disabilities (Dyscalculia, Dysgraphia, and Dyslexia).

**Table -2 Learning Disability-Category-Mean-SD**

Learning Disability	Type of School	N	Mean	SD
Dyscalculia	Government	66	31.8	3.74
	Aided	42	22.52	5.36
	Metric	51	18.9	5.61
	CBSE	41	14.73	4.57
Dysgraphia	Government	66	60.53	10.96
	Aided	42	48.33	8.52
	Metric	51	45.05	10.31
	CBSE	41	43.024	8.03
Dyslexia	Government	66	5.87	3.15
	Aided	42	17.02	4.81
	Metric	51	13.25	3.98
	CBSE	41	25.63	2.73

**Interpretation**

The table 2 shows that government school students has no dyscalculia when compared to other type of school students with mean score of 31.8, students who are belongs to Aided students had the second place with mean score of 22.52, students who are belongs to metric students had the third place with mean score of 18.9 and obtained the students who are belongs to CBSE students had high dyscalculia when compared to other category students with mean score 14.73. Mean score of 48.33, students who are belongs to Metric had the third place with mean score of 45.05 and obtained the students who are belongs to CBSE students had high dysgraphia when compared to other type of school students with mean score 43.024.

The table 2 shows that Government school students has no dyslexia when compared to other school students with mean score of 5.87, students who are belongs to metric students had the second place with mean score of 13.25, students who are belongs to aided students had the third place with mean score of 17.02 and obtained the students who are belongs to CBSE students had high dyslexia when compared to other category students with mean score 25.63.

**Table -3 Learning Disability-Category- ANOVA**

Learning Disability		Sum of Squares	df	Mean Square	F	Sig.
Dyscalculia	Between Groups	8782.681	3	2927.560	127.300	.000*
	Within Groups	4507.474	196	22.997		
	Total	13290.155	199			
Dysgraphia	Between Groups	10505.763	3	3501.921	36.704	.000*
	Within Groups	18700.157	196	95.409		
	Total	29205.920	199			
Dyslexia	Between Groups	10310.295	3	3436.765	250.113	.000*
	Within Groups	2693.205	196	13.741		
	Total	13003.500	199			

\* Significant at 0.05, NS- Not significant



**Interpretation**

It is observed from table 0.00 that the obtained F-value(127.300) for  $df = 3$  and 196 is greater than the table value of 2.70. It is significant at the 0.05 level. Therefore, the null hypothesis is rejected. Hence, it can be inferred that the type of school students significantly affects their learning disability. Since the F-value is significant, a further probe is attempted to know which type of school students differ significantly in their learning disability from other subgroups.

**Table No.4 Learning Disability-Type of School-Mean-SD-t-Value**

L D	Type of School	N	Mean	SD	“t”
Dyscalculia	Government	66	31.80	3.75	10.570*
	Aided	42	22.52	5.36	
	Government	66	31.80	3.75	
	Metric	51	18.90	5.61	14.868*
	Government	66	31.80	3.75	
	CBSE	41	14.73	4.57	21.014*
	Aided	42	22.52	5.36	
	Metric	51	18.90	5.61	
	Aided	42	22.52	5.36	3.159*
	CBSE	41	14.73	4.57	
	Metric	51	18.90	5.61	7.113*
	CBSE	41	14.73	4.57	
Metric	51	18.90	5.61		
CBSE	41	14.73	4.57	3.842*	

\* Significant at 0.05, NS- Not significant

**Interpretation**

It is observed from table 4 that the obtained t-values 10.570, 14.868, and 21.014 are more significant than the table value of 1.96. Therefore, they are significant at a 0.05 level, so it can be stated that government students differed significantly from their neighbor groups, i.e., Aided, Metric, and CBSE in Dyscalculia Learning Disability. The mean differences (9.28, 12.9, and 17.07) favor government school students. It can be stated that government school students possess low dyscalculia learning disabilities compared to their counterparts. The other obtained t-values 3.159 and 7.113 are more significant than the table value of 1.96; therefore, they are significant at the 0.05 level, So it can be stated that aided school students differed significantly from their neighbor groups, i.e., metric, CBSE students in Dyscalculia Learning Disability. The mean differences (3.62 and 7.79) favor aided school students. It can be stated that aided school students possess low dyscalculia learning disabilities compared to their counterparts The other obtained t-value 3.842 is greater than the table value of 1.96. Therefore, they are significant at a 0.05 level, so it can be stated that metric students differed significantly from their neighbor group, i.e., CBSE students in Dyscalculia, Learning Disability. The mean differences (4.17) are in favor of metric school students. It can be stated that metric school students possess low dyscalculia learning disabilities compared to their counterparts.

**Table No.5 Learning Disability-Type of School-Mean-SD-t-value**

LD	Type of School	N	Mean	SD	“t”
Dysgraphia	Government	66	60.53	10.96	6.123
	Aided	42	48.33	8.52	
	Government	66	60.53	10.96	7.763
	Metric	51	45.05	10.31	
	Government	66	60.53	10.96	8.753
	CBSE	41	43.24	8.03	
	Aided	42	48.33	8.52	
	Metric	51	45.05	10.31	1.645
	Aided	42	48.33	8.52	
	CBSE	41	43.24	8.03	2.800
	Metric	51	45.05	10.31	
	CBSE	41	43.24	8.03	
Metric	51	45.05	10.31	0.923	
CBSE	41	43.24	8.03		

**Interpretation**

It is observed from table 5 that the obtained t-values 6.123, 7.763, and 8.753 are greater than the table value of 1.96. Therefore, they are significant at a 0.05 level, so it can be stated that government school students differed significantly from their neighbor groups, i.e.,



aided, metric, and CBSE school students in Dysgraphia Learning Disability. The mean differences 9.28, 12.9, and 17.07 favour government school students. It can be stated that government school students possess low Dysgraphia learning disability compared to their counterparts. It is observed from table 0.000 that the obtained t-value 1.645 is less than the table value of 1.98. It is not significant at the 0.05 level. It can be inferred that the aided school students does not significantly affect their dysgraphia learning disability compared to the metric students. The other obtained t- value 2.800 is greater than the table value of 1.96. Therefore, they are significant at a 0.05 level, so it can be stated that aided students differed significantly from their neighbor groups, i.e., CBSE school students in Dysgraphia Learning Disability. The mean differences (5.09) are in favour of aided students. It can be stated that aided school students possess a low dyscalculia learning disability compared to their counterparts (S.T. Category). The other obtained t-value 0.923 is less than the table value of 1.96. It is not significant at the 0.05 level. It can be inferred that the metric school students does not make a significant difference in their dysgraphia learning disability when compared to the CBSE school students.

**Table No.6 Learning Disability-Type of School-Mean-SD-t-value**

LD	Type of School	N	Mean	SD	“t”
Dyslexia	Government	66	5.87	3.15	14.542
	Aided	42	17.02	4.81	
	Government	66	5.87	3.15	11.170
	Metric	51	13.25	3.98	
	Government	66	5.87	3.15	33.089
	CBSE	41	25.63	2.73	
	Aided	42	17.02	4.81	4.129
	Metric	51	13.25	3.98	
	Aided	42	17.02	4.81	9.982
	CBSE	41	25.63	2.73	
	Metric	51	13.25	3.98	16.918
	CBSE	41	25.63	2.73	

**Interpretation**

It is observed from table 0.000 that the obtained t-values 14.542, 11.170, and 33.089 are greater than the table value of 1.96. Therefore, they are significant at a 0.05 level, so it can be stated that government school students differed significantly from their neighbor groups, i.e., aided, metric, and CBSE school students in Dyslexia Learning Disability. The mean differences (11.15, 7.38 and 19.76) favour aided, metric, and CBSE school students. It can be stated that government school students possess a low dyslexia learning disability compared to their counterparts.

The other obtained t-values 4.129 and 9.982 are greater than the table value of 1.96. Therefore, they are significant at a 0.05 level, So it can be stated that government students differed significantly from their neighbor groups, i.e., metric, CBSE school students in Dyslexia Learning Disability. The mean difference (3.77) is in favor of aided school students. It can be stated that aided school students have a high dyslexia learning disability compared to metric students. Another mean difference (8.61) is in favor of CBSE students. It can be stated that aided students possess a low dyslexia learning disability compared to CBSE school students.

The other obtained t-value 16.918 is greater than the table value of 1.96. Therefore, they are significant at a 0.05 level, so it can be stated that metric school students differed significantly from their neighbor group, i.e., CBSE school students in Dyslexia Learning Disability. The mean differences (12.38) are in favour of CBSE school students. It can be stated that metric school students possess low dyscalculia learning disabilities compared to their counterparts.

**FINDINGS AND CONCLUSIONS**

- ✓ Boys and Girls in High Schools differed significantly in their Learning Disabilities (Dyscalculia, Dysgraphia, and Dyslexia).
- ✓ Boys (Mean = 24.27) in high schools performed better in Dyscalculia than girls (Mean = 21.92) students of high schools. The results contradict the findings of the studies conducted by Ms Mrigakshi Sarma and Dr R.D. Padmavathy (2022), Narendra Singh Thagunna Sapana Change (2019), and Deeksha and Navleen Kaur (2016).
- ✓ High school students differed significantly in their learning Disabilities (Dyscalculia, Dysgraphia, and Dyslexia).
- ✓ Government school students differed significantly from their neighbor groups, i.e., aided, metric, and CBSE school students in learning disabilities.
- ✓ Learning Disabilities (Dyscalculia, Dysgraphia, and Dyslexia) found in CBSE school students.



## RECOMMENDATIONS

- ❖ After learning about their issues, teachers might adopt appropriate styles of instruction to fulfil the individual needs of dyscalculic kids.
- ❖ Teaching can be conducted using a variety of visual, audio, and audio-visual aids to assist students in learning the fundamental principles.
- ❖ By raising awareness of various learning challenges, Dyscalculia can assist teachers and parents in providing a welcoming learning environment for children.
- ❖ Identifying Dyscalculia allows teachers and parents to collaborate to organize the content in a way that allows those children to learn well.
- ❖ Teachers must be aware of various teaching tactics to assist these youngsters in understanding, learning, and completing their math activities.

## CONCLUSION

The main findings of the there is no significance difference in learning disabilities (Dyscalculia, Dysgraphia, and Dyslexia) among high school students with respect to their gender and type of school. Students with learning difficulties are fairly common in schools. However, it is sensible that incidence of learning difficulties varies across schools and countries. The rate of incidence of difficulties related to learning can lie between 12 per cent and 30 per cent of the school population. As the attribution of 'learning difficulty' (LD) is quite high, literature describe such identification of difficulty as 'garden variety' learning difficulty. Confusing the situation, students labeled as learning difficult or disabled is of below average intellectual level, and often are from lower socio-economic and deprived backgrounds. This makes identifications of Learning Disabilities even more complex in Indian context. Most of regular teachers feel that they are not equipped to address individual differences in learning abilities in classrooms. In such a situation, continuing with the term "Learning Disabilities" makes little sense for school programmes. Instead, schools, educators and researchers need to clearly address each type of Learning Disabilities individually to arrive at flawless definitional statements and a articulate understanding of etiology, developmental course, identification, prevention, and management. Other aspects that require attention of researchers, educators and statesmen are development of screening for Learning Disabilities in local languages, equipping all teachers with further training to care for Learning Disabilities and for their inclusion through peer teaching, group activities and teacher interaction. Such movements are to be supported by reducing class size further, funding extra and special remedial classes, and use of appropriate learning aids and development of suitable infrastructure.

## REFERENCES

1. Afolabi, O.E. (2016). Attention-Deficit Hyperactivity Disorder (ADHD) in Children: A Move towards Developmental Perspectives. *International Journal of School and Cognitive Psychology*, 3(2), 2469-9837. <https://www.longdom.org/open-access/attention-deficit-hyperactivity-disorder-add-in-children-a-move-towards-developmental-perspectives-2469-9837-1000171.pdf>
2. Barbaresi, W.J., Katusic, S.K., Colligan, R.C., Weaver, A.L., & Jacobsen, S. (2005). Math learning disorder: Incidence in a population-based birth cohort, 1976-82, Rochester, MN. *Ambulatory Pediatrics*, 5:281-289.
3. Bjorn PM, Aro P, Koponen T, Fuchs LS, Fuchs D. Response-To-Intervention in Finland and the United States: Mathematics learning support as an example. *Front Psychol* 2018; 9:800.  
a. Boston: Allyn & Bacon.
4. Brooks, M.D. (2007) ADD/ADHD: Effects on Mathematics and Mathematical Computations. Marygrove College. <https://files.eric.ed.gov/fulltext/ED499379.pdf>
5. DuPaul, G.J. (2009). ADHD and Learning Disabilities: Research Findings and Clinical Implications. *Current Attention Disorders Report*. [https://www.researchgate.net/publication/225499504\\_ADHD\\_and\\_learning\\_disabilities\\_Research\\_findings\\_and\\_clinical\\_implications](https://www.researchgate.net/publication/225499504_ADHD_and_learning_disabilities_Research_findings_and_clinical_implications).
6. Friend, M. (2005). *Special education: Contemporary perspectives for school professionals*.
7. Fuchs D, Fuchs LS. Responsiveness-to- intervention: a blueprint for practitioners, policymakers and parents. *Teach Except Child* 2005;38:57-61.
8. Gupta, N. (2016) Dyscalculic Co-morbidity in Secondary School-going Children, A Comprehensive Study of Predictive Parameters and Remedies, Dayal bagh Educational Institute. <https://shodhganga.inflibnet.ac.in/handle/10603/230615>
9. *Handbook of learning disabilities* (pp. 383-402). New York: The Guilford Press.
10. Heward, W. L. (2005). *Exceptional children: An introduction to special education* (8th ed.). Upper Saddle River, NJ: Prentice Hall.
11. Hirisave U, Oommen A, Kapur M. *Psychological Assessment of Children in the Clinical Setting*. 4th ed. Bangalore: NIMHANS publication; 2020. India. Amended rules for persons of disability.
12. Jyoti, J. *Self-Confidence, Adjustment and parent- Child Relationship of Dyscalculic Elementary School Students*. Himachal Pradesh



University. <http://hdl.handle.net/10603/35972>

13. Lerner, J. W. (2000). *Learning disabilities: Theories, diagnosis and teaching strategies* (8th ed.). Boston: Houghton Mifflin.
14. Lerner, J. W. (2002). *Learning disabilities: Theories, diagnosis, and teaching strategies* (9th ed.). Boston: Houghton Mifflin.
15. Loe, I.M. and Feldman, H.M. (2007) Academic and Educational Outcomes of Children with ADHD. *Journal of Pediatric Psychology*, 32(6), 643-654. <https://www.researchgate.net/publication/6266909>
16. Mandal, A.K., and Saha, B. (2019) *Mathematics Anxiety and Prevention Strategies: An Attempt to Improvement of Mathematics Performance of Secondary School Students in West Bengal*. *NSOU-Open Journal*, 2(1), 2581-5415.
17. Nagavalli, T. (2015) *A Study of Dyscalculic Primary School Children in Salem District and Evaluation of Applicability of Innovative Strategies as Remedial Measures*. Department of Educational Research and Policy Perspectives <https://www.coursehero.com/file/21126319/Dyscalculic/>
18. Nair MKC, Prasad C, Unni J, Bhattacharya A, Kamath SS, Dalwai S. Consensus statement of the Indian Academy of Pediatrics on evaluation and management of learning disability. *Indian Pediatr*. 2017;54: 574-80.
19. National Institute on Deafness and Other Communication Disorders. (2004). *Auditory processing disorder in children*. Washington, DC: Author. NIH Pub. No. 01-4949.
20. NJCLD. (1982). *Issues in the Delivery of Educational Services to Individuals with Learning Disabilities*. *Journal of Learning Disabilities*, 6(1), 42-44.
21. Panicker AS, Bhattacharya S, Hirisave U, Nalini NR. (2015). Reliability and validity of the NIMHANS index of specific learning disabilities. *Indian J Mental Health*. 2:175-81.
22. Pastor P.N. and Reuben C.A. (2008) *Diagnosed Attention Deficit Hyperactivity Disorder and Learning Disability: United States, 2004-2006*. National Center for Health Statistics. *Vital Health Stat* 10(237). <https://www.researchgate.net/publication>.
23. Pierangelo, R., & Giuliani, G. (2006). *Learning disabilities: A practical approach to foundations, assessment, diagnosis and teaching*. Boston: Allyn & Bacon.
24. Raja, W.D. and Kumar, S.P. *Findings of Studies on Dyscalculia- A Synthesis*. *Journal on Educational Psychology*. <https://files.eric.ed.gov/fulltext/EJ1102320.pdf>
  - a. Retrieved February 3, 2008, from [www.nidcd.nih.gov/health/voice/auditory.htm](http://www.nidcd.nih.gov/health/voice/auditory.htm)
25. *The Rights of Persons with Disabilities Act, 2016*. *The Gazette of India (Extra-Ordinary)*. No.61: New Delhi: Published by Authority; 2018.
26. U.S. Department of Education. (2003) *Identifying and Treating Attention Deficit Hyperactivity Disorder: A Resource for School and Home*. <https://www2.ed.gov/teachers/needs/specced/adhd/adhd-resource-pt1.pdf>
27. Wong B., & Donahue M. (Eds.) (2002). *The social dimensions of learning disabilities: essays in honor of Tanis Bryan*, Mahwah, NJ: Erlbaum
28. Wong, B.Y.L, Harris, K.R., Graham, S., & Butler, D.L. (2003). *Cognitive strategies instruction research in learning disabilities*. In H. Lee Swanson, Karen R. Harris, Steve Graham (Eds.),
29. World Health Organization. (2011) *World Report on Disability: Understanding Disability*. [https://www.who.int/disabilities/world\\_report/2011/report.pdf](https://www.who.int/disabilities/world_report/2011/report.pdf)