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## **A study of attention deficit hyper disorder (ADHD) problem of dyslexic children**

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### **Abstract**

Attention deficit hyper disorder (ADHD) and dyslexia both hamper the learning ability of children in the classroom. An estimated 15.99% of dyslexic children are found in every classroom, and 5.60% of the children have ADHD. The study was undertaken to investigate the correlation between dyslexia and ADHD in school-going children. A survey method was used, and 963 students were selected through random sampling technique. The screening and diagnostic test of Dyslexia (SDTD-J) test by Dr. Khan Zeenat and S. B. Dandegaonkar was used for identifying the percentage of dyslexic children in the classroom, and James E. Gilliam test was used for identifying the percentage of ADHD children in the classroom. The findings also showed that 35.06% of dyslexic children also have ADHD problems.

**Keywords:** Dyslexia, attention deficit hyper disorder.

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## 1. Introduction

According to the American Psychological Association in the DSM-5 (2013), attention deficit hyper disorder (ADHD) is 'a lifelong, persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development across time and settings'.

**According to the National Institute of Health Science (2011)** 'dyslexia is a learning disability which hinders the person's ability to read, write and sometimes to spell and sometimes to speak'.

## 2. Rationale/significance of the problem

During school visits, it was found that many children were restless and continuously kept on moving from one place to another without focusing on the lesson taught by the teacher. The teacher was less bothered about such children and did not pay attention towards them; not only teachers but also parents were not in a position to diagnose the actual problems due to unawareness. Both the parents and teachers kept on labelling the children as they were notorious by nature. Due to ignorance, the hyperactivity and inattention problems became more aggressive which affected their reading and writing and, in turn, it ultimately affected the academic performance of the students in the classroom.

Improper diagnosing and improper treatment by both the parents and teachers motivated the author to take this topic and investigate the common characteristics of dyslexic and ADHD children, which could help the teachers to properly diagnose the problems and provide them with proper remedial teaching.

## 3. Objectives

1. To find the percentage of dyslexic children in the classroom.
2. To find the percentage of ADHD children in the classroom.
3. To find the percentage of dyslexic children with ADHD comorbidity.
4. To study the educational problems of dyslexic children.
  - 4.1 To study the reading problems of dyslexic children.
  - 4.2 To study the writing (polysyllable words) problems of dyslexic children.
  - 4.3 To study the spelling problems of dyslexic children.
5. To study the Educational problems of ADHD students.
  - 5.1 To study the inattention problem of ADHD children.
  - 5.2 To study the impulsivity problem of ADHD children.
  - 5.3 To study the hyperactivity problem of ADHD children.
6. To study the correlation of dyslexia with impulsivity.
7. To study the correlation of dyslexia with inattention/hyperactivity.
8. To study the correlation between dyslexia and ADHD.

## 4. Hypotheses

1. The percentage of dyslexic children in the classroom is low.
2. The percentage of ADHD students in the class is low.
3. The percentage of dyslexic students with ADHD comorbidity is high.
4. The educational problems of dyslexic children are high
  - 4.1 The reading problems of dyslexic children are high.
  - 4.2 The writing (polysyllable words) problems of dyslexic children are high.
  - 4.3 The spelling problems of dyslexic children are high.

5. The educational problem of ADHD children is high.
  - 5.1 The inattention problem of ADHD children is high.
  - 5.2 The impulsivity problem of ADHD children is high.
  - 5.3 The hyperactivity problem of ADHD children is high.
6. There is a positive correlation between dyslexia and impulsivity.
7. There is a positive correlation between dyslexia and inattention/hyperactivity.
8. There is a positive correlation between dyslexia and ADHD.

## 5. Definitions of the important terms

1. **Attention Deficit Hyper Disorder Problem:** ADHD is a commonly diagnosed mental disorder of children with hyperactive and unable to control their impulses or may have trouble paying attention.
2. **Dyslexic children:** The children who are weak in reading, writing and speaking.

## 6. Scope and limitations

### 6.1. Scope

1. It has wide applicability in education for special children.
2. It helps in designing the curriculum and syllabus for dyslexic children and ADHD children.

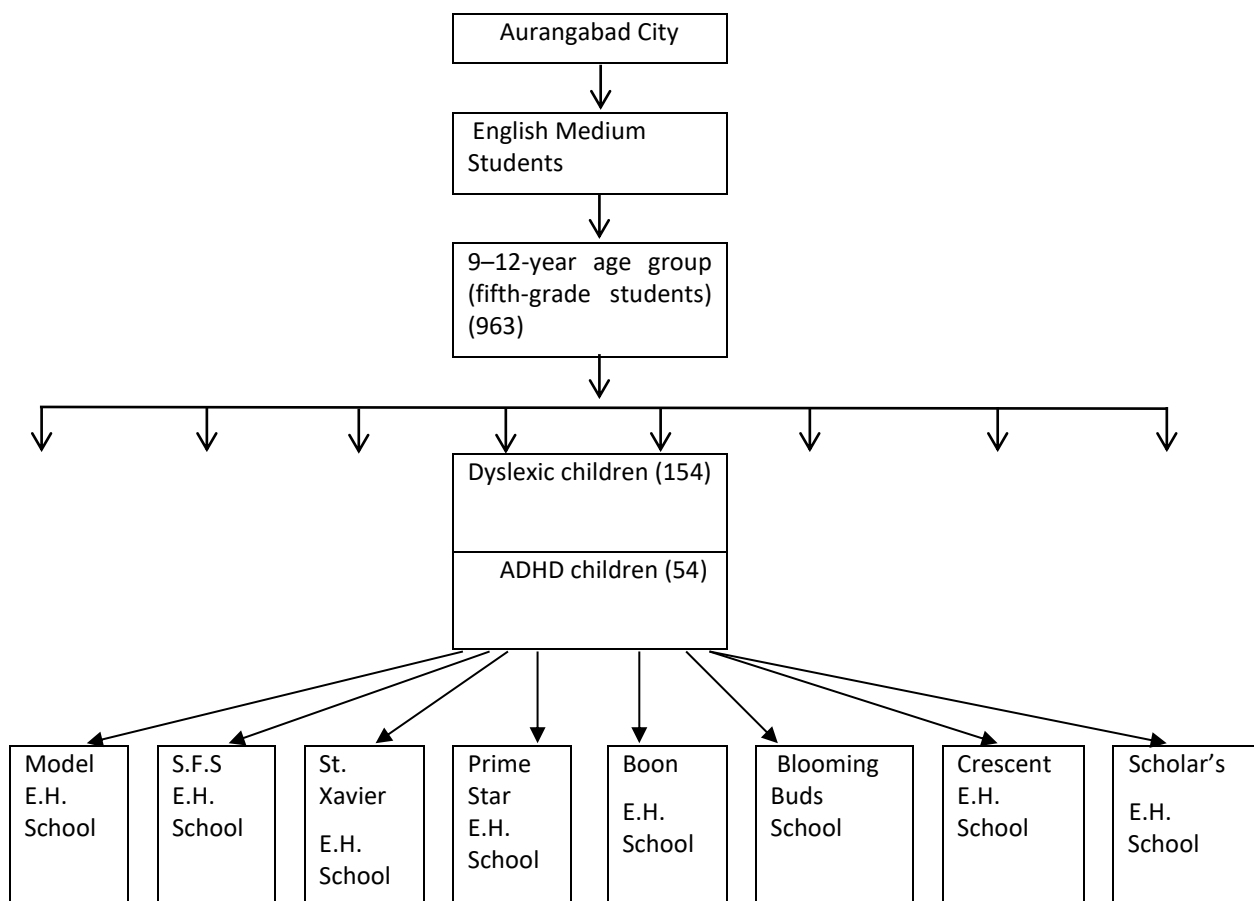
### 6.2. Limitations

1. The study was limited only to English medium students
2. It was limited only to fifth-grade students
3. The study is limited only to 10–12-year age group.

## 7. Assumption

The dyslexic student has high ADHD problem.

### 7.1. Sampling design



### 7.2. Size of the sample

The researcher after defining the population has also determined the size of the sample. Eight English medium schools were selected. Out of this population, 963 students from fifth grade were selected, and screening and diagnostic test of Dyslexia (SDTD-j) by Dr. Khan Zeenat Muzaffar and S. B. Dandegaonkar test was administered to the students. Out of these 963 students, 154 were found

## 8. Types of the variables involved in the study

### 1. Independent Variable or Experimental Variable:

An experiment was conducted to examine the effect of variable or treatment, which is known as an experimental variable. The main attention was given to observe its effect. **Dyslexia** is an experimental or independent variable in this study.

### 2. Dependent Variable:

The basis on which the effectiveness of the experimental variable is established or studied is known as the criterion variable. ADHD is the criterion variable or dependent variable.

## 9. Tools

1. **SDTD-J** by Dr. Khan Zeenat Muzaffar and S. B. Dandegaonkar
2. **ADHD** – Attention deficit hyper disorder – by James E. Gilliam.
3. **ADHD test** by Neeta Jain and Gunthey Ravi.
4. **ADHD test** by Dr. Khan Zeenat Muzaffar.

## 10. Statistical technique

1. Mean
2. Percentage
3. Pearson Product Moment Correlation Technique was used

## 11. Testing of hypotheses

### 1. The percentage of dyslexic children in the classroom is Low.

Sr. No.	Total Number of children to whom the SDTD-J test was administered ( <i>N</i> )	Total number of children identified as dyslexic children.	Percentage of dyslexic children
1.	963	154	15.99%

Hypothesis 1 was accepted since 15.99% of the students in the total sample were identified as dyslexic children in the classroom.

### 2. The percentage of ADHD students in the classroom is low.

Sr. no.	Total number of children to whom the ADHD test was administered ( <i>N</i> )	Total number of students identified as ADHD children.	Percentage of ADHD children
1.	963	54	5.60%

Hypothesis 2 was accepted since 5.60% of the students in the total sample were identified as ADHD children in the classroom.

### 3. The percentage of dyslexic students with ADHD comorbidity is high.

Sr. No.	Total number of dyslexic children to whom the ADHD test was administered ( <i>N</i> )	Total number of dyslexic students identified as ADHD children.	Percentage of dyslexic children with ADHD comorbidity
1.	154	54	35.06%

Hypothesis 3 was rejected since 35.06% of the dyslexic students in the total sample were identified as having comorbidity of ADHD in the classroom.

#### 4. The Educational Problems of dyslexic children are high.

##### 4.1 The reading problems of dyslexic children are high.

Sr. No	Total No. of subjects	Components of reading	No. of errors	No. of students	Percentage of students	Interpretation
1.	154	The children were not able to read the stanza and committed spelling errors, they deleted the words and also added the words while reading. They read only 0–5 words properly in whole stanza of 25 words.	21–25	100	65%	Very poor
2.		Children were able to read only 6–10 words	15–20	46	30%	Poor
3.		Children were able to read 11–15 words properly.	10–15	08	5%	Satisfactory

Hypothesis 4.1 was accepted since 65% of the dyslexic students in the total sample were not in a position to read even five words properly out of 25 words in the given stanza.

##### 4.2 The writing (polysyllable words) problems of dyslexic children is high.

Sr. No.	Total No. of subjects	Components of reading	No. of errors	No. of students	Percentage of students	Interpretation
1.	154	Children we're not able to write a single word of polysyllable.	05	126	82%	Very poor
2.		Children wrote one polysyllable word.	04	15	10%	Poor
3.		Children wrote two polysyllable words.	03	05	3%	satisfactory
4.		Children wrote only three polysyllable words.	02	04	2.5%	Very Satisfactory
5.		children wrote only four to five polysyllable words	01	04	2.5%	Good

Hypothesis 4.2 was accepted since 82% of the dyslexic students in the total sample were not able to write a single word of polysyllable.

##### 4.3 The spelling problems of dyslexic children are high.

Sr. No.	Total No. of subjects	Components of reading	No. of errors	No. of children	Percentage of children	Interpretation
1.	154	Children were not able to write single word of polysyllable.	20–25	123	80%	Poor
2.		Children committed errors between 11 and 15 out of 20 words.	06–10	31	20%	Satisfactory

Hypothesis 4.3 was accepted since 80% of the dyslexic children in the total sample committed spelling errors between 15 and 20 words, out of 20 words.

### 5. The Educational Problems of ADHD children are high.

5.1 The inattention problem of ADHD children are high.

Sr. No.	Variables	Total Number of subjects (N)	High	Average	Low	Total
1. Percentage	Inattention	154	91 72.22	25 19.84	10 7.93	154 100%

Hypothesis 5.1 is accepted since 72.22% of the ADHD children show high inattention problem.

5.2 The Impulsivity Problem of ADHD children are high.

Sr. No.	Variables	Total number of subjects (N)	High	Average	Low	Total
1. Percentage	Impulsivity	154	56 45.16%	43 34.67%	25 20.16	154 100%

Hypothesis 5.2 is accepted since 45.16% of the ADHD children show high impulsivity problem.

5.3) The Hyperactivity Problem of ADHD children are high.

Sr. No.	Variables	Total number of subjects (N)	High	Average	Low	Total
1. Percentage	Hyperactivity	154	54 44.62%	43 34.67%	24 19.83%	154 100%

Hypothesis 5.3 is accepted since 44.62% of the ADHD children show high hyperactivity problem.

### 6. There is a positive correlation between dyslexia and impulsivity/hyperactivity.

Sr. No.	Variables	Number of subjects (N)	Correlation value (r)	Interpretation
1.	Dyslexia Impulsivity/Hyperactivity	154	0.514271061	Positive correlation

Hypothesis 6 is accepted since the correlation value is 0.5142, which indicates a positive correlation between dyslexia and impulsivity.

### 7. There is a positive correlation between dyslexia and inattention/hyperactivity

Sr. No.	Variables	Number of subjects (N)	Correlation value (r)	Interpretation
1.	Dyslexia Inattention/Hyperactivity	154	0.71630541	High Positive

Hypothesis 7 is accepted since the correlation value is 0.7163, which indicates a positive correlation between dyslexia and inattention.

### 8. There is a positive correlation between Dyslexia and ADHD.

Sr. no.	Variables	Number of subjects (N)	Correlation value (r)	Interpretation
1.	Dyslexia ADHD	154	0.415740125	Positive correlation

Hypothesis 8 is accepted since the correlation value is 0.4157, which indicates a low positive correlation between dyslexia and ADHD.

## 12. Suggestions

- Use high-interest curriculum materials.
- Check the difficulty level of the reading material and textbooks to make sure that they are appropriate to the child's reading level. The level that is too easy leads to boredom and a level that is too difficult leads to frustration.
- Selects manipulable, hands-on material wherever necessary.
- Establish a solid, concrete experiential base for teaching abstract concepts.
- Demonstrates how new information relates to material already learnt.
- Introduce new vocabulary before beginning the lesson.
- Use visual aids to supplement oral and written information.
- Use learning aids to structure learning and increase motivation.
- Seating the child in a place that is relatively free from distraction (e.g., doors and windows) in a position where the teacher can easily intervene if the child is not attending.

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## References

- Chadda, A. (2001). *A guide to educating children with learning disabilities*. New Delhi, India: Vikas Publishing House Pvt. Ltd.
- Dandekar, W. N. (2002). *Psychological foundation of education*. New Delhi, India: McMillan India limited Delhi-III edition.
- Kirk, S. K. (1962). *Educating exceptional children*. New Delhi, India: Oxford and IBH Publishing Co., p. 387.
- Lokhanda, G., Shantakumari, P., Kusuma, A. & Shyamala, V. (2010). *Behavioral disorder in children*. New Delhi, India: Discovery Publishing House, p. 395.
- [Online]. (XXXX). Retrieved from [summerprograms.mobi/tag/teaching-study-skills-to-dyslexic-students](http://summerprograms.mobi/tag/teaching-study-skills-to-dyslexic-students)
- [Online]. (XXXX). Retrieved from [www.academia.edu/9865097/TO\\_PREPARE\\_A\\_REMEDIAL\\_TEACHING\\_PROGR](http://www.academia.edu/9865097/TO_PREPARE_A_REMEDIAL_TEACHING_PROGR)
- Singh, U. K. & Nayak, A. K. (1997). *Special education*. New Delhi, India: Common Wealth Publisher, p. 314.
- Venkatesan, S. (2004). *Children with developmental disabilities*. New Delhi, India: Sage Publication, p. 251.
- Yssel Dyke, J. E. & Algozzine, B. (1988). *Special education*. New Delhi, India: Kanishka Publishers, p. 523.