# Orthographical Error Analysis and Development of a Remedial Programme for the Learning Disabled children of Kannur District, Kerala.

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**Abstract:** This study was an endeavour to find out the orthographical errors in the written work in English of the learning disabled children. The distributions of orthographical errors in various types of specific error categories were analyzed. The study aimed at examining whether the factors like gender of the pupils had any influence on the performance of the Learning Disabled Children on the spelling test in English. The investigator designed a Remedial programme for the Learning disabled Children and validated by the practicing teachers of LD for the purpose of the study. The result revealed that there is a significant difference in the error scores of boys and girls among Learning Disabled in the written spelling test.

Keywords: Orthographical errors, Dysgraphia, Learning Disabled.

# I. Introduction

The concept of 'Learning Disabilities' is relatively new in India.

Learning Disability may occur in various forms such as reading disability, writing disability, communication and comprehension disability, numerical disability etc . Learning Disability is not a disease so there is no cure but there are ways to overcome the challenges it poses through identification and accommodation. The word 'Dysgraphia' simply means difficulty in expressing thought in writing. Spelling needs to be given due importance in the process of teaching and learning a language. Spelling has received less attention than reading although the spelling difficulties of students with Learning Disabilities may be more severe than their reading disabilities and have proven to be more difficult to remediate. It is quite often that parents and teachers accuse children for their low achievement without making an attempt to understand their learning difficulties. Certainly this is due to inadequate knowledge of parents as well as teachers to understand these areas of exceptionality.

#### **Theoretical Frame Work**

According to BLUCKENER and BOND, Learning Disabled students score better in reading than spelling, which again reflects on the complex nature of spelling skills. If an unexplained discrepancy is found between spelling achievement and expectancy additional spelling samples should be gathered and a detailed analysis made. According to ALKINS, children with specific reading or spelling disabilities have particular deficits in auditory memory skills. According to M.C.KERNAN the ways to modify instruction to accommodate students spelling difficulties are "using chalk boards and quizzes, teaching mnemonics devices and modifying spelling programme. According to COOLEY, the boys outnumber girls by about 3:1 in the Learning Disabilities category.

#### Need for the Study

To participate fully in today's information based society, students with Learning Disabilities need to develop correct writing skills. The spelling difficulties of students with learning disabilities may be more severe than their reading disabilities and have proven to be more difficult to remediate.

#### **Statement of the Problem**

Orthographical Error Analysis and Development of a Remedial Programme for the Learning Disabled Children of Kannur District, Kerala.

# **Operational Definition of the Terms**

Orthographical Error Analysis: - Spelling accuracy and Error patterns which are identified and

analyzed for the purpose of the study.

**Remedial Programme:** - Remedial Programme in English spellings which are developed by the investigator and validated by the practicing teachers for dysgraphic students.

# **Objectives of the Study:**

- To identify the Orthographical Errors of Learning Disabled Children.
- To categorize the Learning Disabled Children in terms of Maximum occurrence of errors (low performance incorrect spelling, Moderate occurrence of errors (average performance in correct spelling) and Minimum occurrence of errors (high performance in correct spelling).
- To analyze the Orthographical Errors of Learning Disabled Children in terms of Maximum occurrence of errors (low performance incorrect spelling, Moderate occurrence of errors (average performance in correct spelling) and Minimum occurrence of errors (high performance in correct spelling).
- To analyze Orthography of Learning disabled Children in terms of gender.
- To develop a Remedial Programme in English spelling for Learning Disabled Children based on Error Analysis.
- To validate the Remedial Programme by the practicing teachers.

# Hypotheses of the Study

- There is a significant difference among the Learning Disabled Children with respect to orthography
- There is a significant difference among the Learning Disabled Children with respect to gender

# Variables of the Study

The variables involved in the present study were

- Learning Disabled Children
- Orthography
- Gender

# II. Methodology

The present study was a descriptive survey study. A study of Orthographical Error Analysis and Development of a Remedial Programme for the Learning Disabled Children.

# Population and Sample

Population of the study consisted of all the Learning Disabled Children of Kannur District, Kerala state. The samples on present study consisted of 30 Learning Disabled Children of Kannur District, Kerala state.

# Tools Used in the Study

As no suitable tools could be located to fulfill the objective of the present study, the investigator had to construct the tools. The tools prepared by the investigator were a written test in English spelling and Development of a remedial programme in English spelling for the Learning Disabled children.

# Statistical Techniques Used:

**Descriptive Statistics:** - Descriptive statistics namely, Mean, Median, standard deviation, skewness, and frequency table were used. Graphical representation -Smoothed frequency polygon, O give and Bar graph were plotted for the variables involved in the study.

**Inferential Statistics:-**\*t' Test was employed to find out the significant difference between the mean of scores.

# Analysis and Interpretation of Objective One:

The first objective of the study was to identify the orthographical errors of Learning Disabled children. The objective was analyzed using descriptive statistics viz., mean, median, standard deviation, skewness, frequency table and by graphical representation of the data in the form of a smoothed frequency polygon.

Error Scores Midpoint Frequency Smoothed Frequency								
0-4	2	9	5					
5-9	7	6	6.3					
10-14	12	4	5.3					
15-19	17	6	5					
20-24	22	5	3.6					

# Table1.1 Frequency Distribution of Error Scores on the Written Test in English spelling of the Learning Disabled

	Table1.2								
Mean, median, standard deviation and skewness of the error scores of Learning Disabled.									
Error Scores	Error Scores Mean Median Standard deviation Skewness								
25	10.8	8	7.7	0 368					

#### Interpretation:-

Orthographical Error Scores of Learning Disabled can be identified from Table and smoothed frequency polygon. From the table, it is observed that the mean (10.8) and median (8) values are close to each other. The skewness was found to be 0.368. It shows that the frequency of scores falling below the mean is higher than the frequency of scores above the mean. This shows that the Error Scores of Learning Disabled are approximately normally distributed.

#### Analysis and Interpretation of Objective Two

The second objective was to categorize the Learning Disabled in terms of Minimum occurrence of errors (high performance in correct spelling), Moderate occurrence of errors (average performance in correct spelling), Maximum occurrence of errors (low performance in correct spelling). The objective was analyzed using frequency table.

Table1.3	Categorization of Spelling errors			
Categorization	Frequency	Frequency %		
Maximum occurrence of errors (low performance in correct spelling)	6	20		
Moderate occurrence of errors (average performance in correct spelling)	17	56.6		
Minimum occurrence of errors (high performance in correct spelling),	7	23.4		

#### Interpretation

It is observed that there is a difference among Minimum occurrence of errors (high performance in correct spelling), Moderate occurrence of errors (average performance in correct spelling), and Maximum occurrence of errors (low performance in correct spelling) of learning disabled children

#### Analysis and Interpretation of Objective Three

The third objective was to analyze the orthographical errors of Learning Disabled in terms of Minimum occurrence of errors (high performance in correct spelling), Moderate occurrence of errors (average performance in correct spelling), Maximum occurrence of errors (low performance in correct spelling). The objective was analyzed using graphical representation of the data in the form of bar diagram.

Table1.4	Categorization of Spelling errors.			
Categorization	Frequency	Frequency %		
Maximum occurrence of errors	6	20		
(low performance in correct spelling)				
Moderate occurrence of errors(average	17	56.6		
performance in correct spelling)				
Minimum occurrence of errors	7	23.4		

(high performance	in correct spelling),	
<b>T</b>		

# Interpretation :-

From the table, it is observed that the moderate occurrence of errors of Learning Disabled are high compared to minimum occurrence of errors and maximum occurrence of errors

#### Analysis and Interpretation of Objective Four

The fourth objective was to analyze orthography in terms of gender. The objective was analyzed using descriptive statistics viz., mean, median, standard deviation skewness, and by graphical representation of the data in the form of bar diagram, and ogive. The null Hypothesis formulated was tested by using inferential statistics viz., \*t' test.

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			Table1.5											
	Frequency	y Distribut	ion of Erro	or Score of	Boys and (	Girls :-								
oys	Girls						1							

Error	Boys	Girls						
Scores	Freq	Cum Freq	Cum Freq%	S.C.F%	Freq	<b>Cum</b> Freq	Cum Freq %	S.C.F%
0-4	2	2	13.33	13.31	7	7	46.67	40
5-9	2	4	26.6	31.1	4	11	73.33	64
10-14	4	8	53.3	53.1	0	11	73.33	80
15-19	3	11	73.3	75.5	3	14	93.33	89
20-24	4	15	100	91	1	15	100	98

Table1.6 Representing Mean, Median, Standard deviation, Skewness and 't' value of the error scores of boys and girls.

Gender	Maximum Error Score	Mean	Median	Standard deviation	Skewness	t value	Remark
Boys	25	14	13	7.12	-0.1612	2.307	Significant 0.05
Girls	25	8	5	7.54	1.14		level

#### Interpretation

The differences in Error Scores of Boys and Girls among Learning Disabled Children in the written spelling Test are shown by the distances separating the two ogives at various levels. From the ogive we can conclude that the Error Scores of Boys among Learning Disabled children in the written spelling test is higher than the Error Scores of Girls among Learning Disabled Children in the written spelling test.

The Mean Error Scores of Boys was higher than the mean Error Scores of Girls distribution. Similarly the median of Boys Error Scores was higher than the median Error Scores of Girls distribution. Which shows the Error Scores of Boys were more dispersed than that of girls. Boy's skewness was found to be -0.1612. The distribution shows the degree of negative skewness of -0.1612. It shows that the frequency of Error Scores falling above the mean is higher than the frequency of error scores below the mean. The median falls to the right of the mean.

The negligible degree of negative skewness shows that the distribution closely approaches the normal distribution. The skewness of girls' distribution is higher than that of boys' distribution.

It is observed that the obtained 't' value (2.307) is greater than the table value 2.04. Hence the obtained 't' value is significant at 0.05 level with the degrees of freedom 28. Hence the null Hypothesis is rejected and alternate Hypothesis is "There is a significant difference in the error scores of boys and girls among learning disabled children in the written spelling test is accepted."

#### Analysis and Interpretation of Objective Five:-

The fifth objective was to develop a Remedial programme in English spelling for the Learning Disabled Children based on the Error Analysis. Remedial programme was designed by the investigator and validated by the practicing teachers since individualized instruction is required for longer duration for the Learning Disabled Children. Following research studies guided the investigator in the preparation of Remedial programme for Learning Disabled The studies of M.C.Kernan, Cheryl (1982), Alkenes, M and Turkey, E (2004), Nelson and warring or, Joneses and Mike best (1976), Recliner and bond (1995), Kirk (1962), Cooley (1991) Bryant and Bradley (1983), helped the investigator to develop Remedial programme for the learning disabled children in spelling errors.

# Analysis and Interpretation of Objective Six:-

The sixth objective was to validate the Remedial programme in English spelling for the Learning Disabled Children, by the practicing teachers of Learning Disabled

### Major Findings of the Study

- The Orthographical error scores of Learning Disabled Children are approximately normally distributed.
- Moderate occurrences of errors of Learning Disabled Children are high compared to Minimum occurrence of errors and Maximum occurrence of errors.
- There is a significant difference in the error scores of boys and girls among Learning Disabled in the written spelling test.
- The error scores of boys are higher than the error scores of girls among Learning Disabled in the written spelling test.

#### **Educational Implications of the Study**

- Systematic instruction and incidental learning approaches are essential, in order to maximize the development of spellings in students with Learning Disability.
- The advantage of using a multidimensional and diagnostic assessment procedure is that it helps in the design and implementation of a relevant individualized intervention.
- Curricula for Learning Disabled students should be well organized to encourage linguistic discovery.
- Teacher should categorize the Learning Disabled students according to their academic abilities (achievement) so that remediation will be effective and easy.
- Teacher should use remedial programme to enhance the orthography of Learning Disabled students.

#### III. Conclusion

Learning disability is not a disease; there are ways to overcome a challenges of the learning disabled through identification and accommodation. Therefore, increasing the opportunities to respond to practice spelling and repetition of the same will result in improved performance and thus enhance the orthography of the learning disabled.

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