

Chapter - III

Methodology

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METHODOLOGY

A well designed study/research procedure and use of appropriate techniques defines the methodology of research. It not only make the study scientifically sound and plausible but also gives credibility to the findings.

Selection of an appropriate and representative sample is necessary for valid and reliable results. Similarly selection of good and reliable tools is also very important for better results.

3.1.0 Sample

Sample is a portion of the population which represents the population wholly and truly. A good sample must be as nearly the representative of the entire population as possible and ideally it must provide the whole of the information about the population as from which the sample has been drawn.

For the present study purposive sampling is done. Four schools were selected .Two schools had five sections and the other two had one section. From each section dyslexic children at risk and non-dyslexic children were selected.

The following methodology was used for identifying genuine cases of Dyslexia. Children studying in Grade V, who were having problems in basic skills of learning specially in reading ,were identified using NCERT Checklist by the teachers.

Table 3.1 : Sample Suggested by the Teachers

S .No	Name of the School	Total No. of Students
1	School A	17
2	School B	15
3	School C	6
4	School D	3
	TOTAL	41

Forty -one students were identified by the teachers. The researcher administered the Reading Attainment test to the children to know the problems in reading. All the children have problems in reading .

The sensory, emotional, cultural and socio-economic problems of these children were observed by the investigator by using Case Study Proforma. Those who have reading problem due to above mentioned causes were eliminated from the study.

Table 3.2: Number of Students Eliminated And Retained

S. No	Criteria	Children Eliminated	Children Retained
		N = 41	N = 41
1	Sensory problem	-	41
2	Emotional Problem	2	39
3	Cultural Deprivation	1	38
4	Socio-economic Problem	4	34
	TOTAL	7	34

Thirty- four Students were retained. Later on Intelligence Test (Raven's Coloured Progressive Matrices) was administered to these children to identify the level of intelligence.

Table 3.3: Number of Students in Different Grades on RCPM Test

Grade	Interpretation of Grade	No. of Students
I	Intellectually Superior	9
II	Above Average	16
III	Average	5
IV	Below Average	3
V	Intellectually impaired	1

Out of forty -one children, only thirty were identified at risk i. e those have problem in reading and they were considered for further study. An equal number of children with no learning disabilities and of similar mental ability were randomly selected.

3.2.0 Research Tools

Tool is a device through which data is collected. The reliability and validity of the tool should be established. Standardized tools are used because their reliability and validity is established by the toolmaker.

In the present study following tools were used.

3.2.1 NCERT Checklist

In the checklist the characteristics of Dyslexic children were given. The specific disorders in reading were given with examples.

3.2.2 Reading Attainment Test

Reading attainment test was developed by the researcher in which a paragraph in English and Hindi was selected from the supplementary book of class V .The content in the paragraphs was of average difficulty level. Questions were given related to the paragraph to know the comprehension level of the students.

3.2.3 Case Study Proforma

The case study proforma was used to identify the students having different types of problems i.e sensory problems, emotional problems, cultural deprivation and socio- economic problem.

3.2.4 Raven's Coloured Progressive Matrices

The Coloured Progressive Matrices was developed by J .C Raven . It consists of 36 items in 3 sets of 12 ; A ,Ab and B .It is designed for use with young children and old people. The three sets are arranged to assess the chief cognitive processes of which children under 11 year of age are capable. The items are arranged in progressive difficulty. The test is administered in group.

Scoring and interpretation- Coloured Progressive Matrices can be easily scored. One point is given for each correct answer. The most satisfactory methods of interpreting the significance of a person's total score is to consider it in terms of percentage frequency with which a similar score is found to occur amongst people of the same age . For practical purposes it is convenient to consider certain percentages of the population and to group person's score accordingly. In this way it is possible to classify a person according to the score obtained.

Grade I intellectually superior if score lies at or above 95th percentile.

Grade II definitely above the average if a score lies at or above 75th percentile.

Grade III intellectually average if a score lies between the 25th and 75th percentile.

Grade IV definitely below average if score lies at or below the 25th percentile.

Grade V intellectually impaired if a score lies at or below the 5th percentile.

3.2.5 Children's Personality Questionnaire

Children's Personality Questionnaire is developed by Raymond B. Cattell and Rutherford B. Porter. Children's Personality Questionnaire measures a set of fourteen factorially independent dimensions of personality. The CPQ has forms A-B-C-D. The form A is made up of part A₁ and part A₂, each consisting of 70 items, five per factor. Similarly other forms have two parts.

Administration- The test can be administered to students of 6- 12 years. The test is administered without a time limit but for younger children it is better to divide the testing time into two parts for a given form.

Scoring- The CPQ test is scored by separate stencils available for scoring. The raw scores are converted to sten score using the norm tables

Interpretation – Each of the fourteen factors of personality has a name , a common name ,a technical name and also an alphabetic symbol for convenience of rapid reference. Each dimension is defined by two poles or extremes. The left hand one in the description is a score at low end of the stens and right hand one in the description is a score at high end. The description of factors is in the table .

Table 3.4 : Description of Personality factors of CPQ

Low score description	Factor	High score description
Sizothymia –reserved, detached, critical,cool,aloof	A	Affectothymia – warmhearted , outgoing ,easygoing
Low Intelligence – dull	B	High Intelligence – Bright
Lower Ego Strength – affected by feelings,emotionally less stable, easily upset	C	Higher Ego Strength – Emotionally stable ,mature , faces reality
Phlegmatic Temperament –undemonstrative, deliberate , inactive	D	Excitability –Excitable ,impatient ,demanding overactive
Submissiveness – obedient, mild, accommodating	E	Dominance –Assertive , competitive ,aggressive
Desurgency – sober, prudent, serious, taciturn	F	Surgency –Enthusiastic , happy go lucky , heedless
Weaker Superego Strength- expedient , disregards rules	G	Stronger Superego Strength – Conscientious, persevering
Threctia – shy , threat sensitive, timid	H	Parmia –venturesome , socially bold, uninhibited
Harria – tough minded , self reliant , realistic	I	Premisia –tender minded , sensitive , overprotected
Zeppia zestful, likes group action, vigorous	J	Coasthenia –circumspect individualism, reflective
Naivete- forthright, natural, artless	N	Shrewdness– shrewd , calculating ,artful
Untroubled adequacy – self assured, confident , secure	O	Guilt proneness –guilt prone , apprehensive , worrying ,insecure
Low Self–sentiment Integration – undisciplined self conflict, follows own urges	Q ₃	High Self concept Control – controlled , socially precise, following self image
Low Ergic Tension – relaxed , tranquil ,composed ,unfrustated	Q ₄	High Ergic Tension –tense ,frustrated , driven ,fretful

The administration of the various tools followed the following procedure.

First phase

In this phase the researcher oriented the teachers of selected schools so that they know about learning disabilities and dyslexia. The teachers were given NCERT check list. The teachers identified the children having problems in reading by going through the check list.

Second phase

The researcher called the students one by one and made them to read a paragraph in English as well as in Hindi to know the reading problems. The child was allowed to read the paragraph silently for few minutes and some questions related to the paragraph were asked by the researcher at the end. The students identified as dyslexics were further identified as students having emotional or sensory problems. For this the case study proforma was given to the students to be filled by their parents. The researcher also observed the selected students for case study. The children who have sensory impairment, emotional problem, cultural deprivation and socio- economic problems were excluded from the sample.

Third phase

In third phase the children at risk were administered intelligence test (Coloured Progressive Matrices). The children who were below average were excluded from the sample.

Fourth phase

The children who were emotionally stable, have no sensory impairment and belong to high socio-economic status were selected in the final sample. These students were administered CPQ to know their personality factors. An equal number of non dyslexic children were selected randomly by their teachers and they were also administered CPQ.

3.4.0 Statistics Used

To analyze the data Mean, Standard deviation and t- value was computed.