

# A Study to Evaluate the Effectiveness of Self Instructional Module on “Identification and Care of Children with Selected Learning Disabilities” in Terms of Knowledge and Attitude of Primary School Teachers in Selected Schools of Delhi

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## Abstract

**Background:** The incidence of dyslexia in Indian primary school children had been reported to be 2-18%, dysgraphia 14%, and dyscalculia 5.5%. India is thought to have approximately 90 million people with varying degrees of Learning Disabilities and an average class in school has about five students with Learning Disabilities. A recent news article in Times of India states that dyslexia is the most common learning disability with nearly 35 million children suffering from it.

A study conducted in Haridwar, India (2015), showed that 67% of teachers had no knowledge of LDs. Overall, teacher educators who participated in that study had a low level of knowledge about SLDs, irrespective of their gender or teaching experience.

**Objective:** The aim of the study was to assess the effectiveness of self-instructional module on “Identification and care of children with Selected Learning Disabilities” in terms of knowledge and attitude of primary school teachers in selected schools of Delhi.

**Hypothesis:** H1: The mean post-test knowledge score of primary school teachers will be significantly higher than their mean pre-test knowledge score after the administration of self-instructional module on identification and care of children with Selected Learning Disabilities as evident from a structured knowledge questionnaire at 0.05 level of significance.

H2: The mean post-test attitude score of school teachers will be significantly higher than their mean pre-test attitude score after the administration of self-instructional module on identification and care of children with Selected Learning Disabilities as evident from structured Likert scale at 0.05 level of significance.

**Methodology:** Quantitative, pre experimental research approach with one group pre-test post-test design was used to assess the knowledge and attitude of primary school teachers through 63 primary school teachers as samples working in selected primary schools of Delhi, by using purposive sampling technique.

The data was collected using structured knowledge questionnaire and structured attitude likert scale.

**Result:** There was a significant difference in level of knowledge and attitude of primary school teachers after administration of self-instruction module on identification and care of children with Selected Learning Disabilities as evident from the increase in mean of knowledge and attitude score.

Self-instructional module on “Identification and care of children with Selected Learning Disabilities” was found to be effective in enhancing the knowledge and improving the attitude of primary school teachers as evident from the ‘t’ value at 0.05 level of significance.

**Conclusion and recommendation:** This study showed that less than half of the participants had achieved continuum of care and education level, both respondents and husband occupation, parity, autonomy to health care decision, exposure to the mass media, and wontedness of pregnancy were associated with completion of maternity continuum of care, therefore working on enhancing of the capacity of women autonomy in health care decision making and preventing unintended pregnancy helps to improve completion of maternity continuum of care.

**Keywords:** Dyslexia; Dysgraphia; Dyscalculia; Knowledge; Attitude

## Introduction

Children of today shall be tomorrow’s responsible citizens of the world. There is a great to emphasize on children these days because of they form a very substantial proportion of the world’s population, 35-45% constitutes young children [1].

Learning Disabilities are one of the issues that need special attention in today’s scenario. India is thought to have approximately 90 million people with varying degrees of Learning Disabilities and an average class in school has about 5 students with Learning Disabilities [2].

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Specific Learning Disabilities (SLD) is broad classes that include problems in one or more areas of learning such as reading, writing, listening, speaking and mathematics. These are usually identified among preschool and primary school children although tends to progress into adulthood. Globally, they still remain as "one of the least understood and most debated conditions that affect children" [3].

The World Health Organization has estimated that the prevalence of Learning Disability in industrialized countries is around 3% [4].

According to conservative estimates, 20 % of all school children suffer from one or the other type of Learning Disabilities. But only about 10% children are identified in Indian schools with learning disability. Most parents and teachers remain unaware of the problem and tends to overlook it.

In India, the awareness about Learning Disabilities is only at the beginning stage. Hence it becomes very crucial to create a non-discriminatory process to address the problem about the same. At present, there are no uniform guidelines in India for diagnosis, assessment of severity and certification of LDs in India. There is a wide variation in recommendations from state to state and across one board of examination to another [5].

Since teachers have the task of identifying students' difficulties at an early stage, the provision of support is influenced by their knowledge of Learning Disabilities and how well they understand their students.

In other countries, various studies on the subject found that teachers had low to moderate knowledge and awareness about Learning Disabilities (Khatib, 2007; Saludes and Dante, 2009; Adebowale and Moye, 2013) [6].

Few Indian studies have revealed that the teachers had an average level of knowledge regarding specific Learning Disabilities, irrespective of their gender and teaching experience (Kamala and Ramganes, 2003; Lingeswaran, 2013) [6].

If the special needs of children with Learning Disabilities are not attended, it will result in scholastic backwardness and related psychosocial problems. Thus, early identification and intervention is very important. The ultimate focus of this study was to help teachers by developing a manual that could contribute towards the process of identifying children with Learning Disabilities [6].

According to Learning Disabilities Services, students can be greatly benefited when the teacher takes a little time and thought to accommodate their needs. These students may need accommodation in some classroom activities, assignments and exams. Making the child aware of a disability is a great service to the child. Unless such children are identified and properly treated, they may develop secondary emotional, social and family problems.

It is in this context, the importance of a teacher becomes vital in safeguarding and promoting the mental health of children and early identification of deviations from normal [7].

The school is regarded as one of the most organized and powerful systems in the society which presents opportunity to work through it and to influence the health and wellbeing of those who come in contact with it. This is especially true in Indian setting where there is considerable shortage in mental health facilities for children [8].

The major constraint faced by Learning Disabled appears to be the lack of proper knowledge and positive attitude exhibited by professionals within the field of education.

WHO insisted on the fact that, mental health program should utilize trained teachers to improve the psychosocial aspect of the school children. A mental health input in the School Health Program plays a major role in the amelioration of social, behavioral and learning problems in school children [7].

Without knowing the etiology and the background of the learning disabilities, poor performance can be considered a brain disorder; results in ill-treatment by teachers, which in turn further reduces children's confidence. Similarly no attempts were made to identify and fasten their capabilities in other fields. Hence, researcher felt that it is important to understand the knowledge and attitude of teachers towards the child's disabilities. Moreover, related studies were found to be very few in Indian setting. This observation inspired the researcher to select this topic for the study [7].

## Methodology

### Participants

A quantitative, pre experimental research approach, one group pre test post test research design was used for the study. The study setting was Primary Schools of New Delhi, India. The population included in the study was primary school teachers with a sample size of 63 primary school teachers who were selected using purposive sampling.

### Tools used

#### Tool 1

i) Structured questionnaire for socio demographic profile (SECTION I) and Structured questionnaire for assessing the knowledge regarding Selected Learning Disability of primary school teachers (SECTION II).

#### SECTION I

Socio-demographic profile of primary school teachers. The socio-demographic profile consists of items regarding personal information of primary school teachers such as age, sex, professional education, teaching experience, age of the students they are teaching, total number of students in class.

#### SECTION II

Structured knowledge questionnaire to evaluate the knowledge of primary school teachers on identification and care of children with Selected Learning Disabilities. The structured knowledge questionnaire consists of 20 questions regarding child behavior, 9 questions regarding Learning Disabilities and 15 questions regarding Selected Learning Disabilities. Each question ca.

#### Tool 2

ii) Structured attitude Likert scale for assessing the attitude towards Selected Learning Disability of primary school teachers.

Structured attitude Likert scale consists of 22 items regarding attitude of teachers towards children with selected Learning Disabilities and its management.

Both the tools were validated by the 11 experts in field of psychiatry, pediatrics, community health nursing, mental health nursing. Kuder Richardson-20 and cronbach alpha were used to establish the reliability of the tools. The study was delimited to primary school teachers only teaching primary school students in New Delhi only. Only the teachers available on the time on data collection were included in the study.

The data were analyzed using inferential and descriptive statistics.

## Process

The data was collected within 15 days of time after obtaining formal administrative approval. The data was collected in the following manner:

- Self-introduction and establishment of report with sample
- Purpose of the study was explained to them
- Subject were assured the confidentiality of their responses

**Day 1 to Day 5 (Pre Test):** After explaining the purpose of the study and taking the informed consent from the samples, the structured knowledge questionnaire and structured attitude Likert scale was administered to 63 primary school teachers. It took 30 to 35 minutes to complete the knowledge and attitude scale.

**On day 1 to Day 5:** Self-instructional module was administered to primary school teachers. The self-instructional module was explained to the teachers using charts and power point presentations which took 40 minutes. At the end of the teaching, the teachers were asked to clarify any doubt they had.

**From the Day 8 to Day 12:** Post test was conducted with the structured knowledge questionnaire and structured attitude Likert scale to evaluate the effectiveness of self-instructional module.

## Results

Maximum number of primary school teachers 27 (43%) were in the age group of 29-32 years, 51 (81%) of all the primary school teachers were female, according to the data, 41 (65%) of primary school teachers had undergone Elementary Teacher Training, 26 (42%) of primary school teachers had experience of >10 years, 20 (32%) of primary school teachers taught 6-7 years of school children, 31 (50%) of the primary school teachers had total number of students ranging from 31-40 and maximum number of primary school teachers 33 (52%) had previous knowledge regarding Learning Disabilities (Table 1).

Data presented in the table shows that the mean and median posttest knowledge score of the primary school teachers is higher than the mean and median pretest knowledge score.

The standard deviation of posttest knowledge score was which was lower than the standard deviation of pretest knowledge score suggesting an equal and homogenous grasping of knowledge post exposure to the self-instructional module.

H1: The mean posttest knowledge score of primary school teachers will be significantly higher than their mean pretest knowledge score after the administration of self-instructional module on identification and care of children with Selected Learning Disabilities as evident from a structured knowledge questionnaire at 0.05 level of significance (Table 2).

The data presented in the table shows that the mean posttest knowledge score was higher than the mean pretest knowledge score with the main difference of (14.5). The obtained mean difference was found to be statically significant as evidence from the ‘t’ value of (13.67) at 0.05 level of significance.

Therefore obtained mean difference was the true difference and not by chance so the research hypothesis H1 was accepted. This shows that the self-instructional module was effective in enhancing the knowledge of primary school teachers regarding identification and care of children with Selected Learning Disabilities (Table 3).

Data presented in the table shows that the mean and median posttest attitude score of the primary school teachers were lower than the mean and median pretest attitude score which shows that self-instructional module was effective in enhancing the attitude of primary school teachers.

The standard deviation of posttest is attitude was (7.97) which was lower than the standard deviation of pretest knowledge score (10.83) suggesting an equal and homogenous grasping of attitude post exposure to the self-instructional module (Table 4).

**Table 1:** Frequency and percentage distribution table of sample characteristics of primary school teacher (N=63).

| S.NO. | Sample Characteristics                              | Description                                  | Frequency | Percentage |
|-------|---|--|-----------|------------|
| 1.    | Age   | 21-24 year                                   | 4         | 6          |
|       |   | 25-28 year                                   | 12        | 19         |
|       |   | 29-32 year                                   | 27        | 43         |
|       |   | >33 year                                     | 20        | 32         |
| 2.    | Sex   | Male   | 12        | 19         |
|       |   | Female                                       | 51        | 81         |
| 3.    | Professional Education                              | Elementary Teacher Training                  | 41        | 65         |
|       |   | B.Ed   | 14        | 22         |
|       |   | Other  | 8         | 13         |
| 4.    | Teaching Experience                                 | <1year                                       | 9         | 14         |
|       |   | 1-5 years                                    | 21        | 33         |
|       |   | 6-10 years                                   | 7         | 11         |
|       |   | >10 years                                    | 26        | 42         |
| 5.    | Age of Students                                     | 6-7years                                     | 20        | 32         |
|       |   | >7-8 years                                   | 13        | 21         |
|       |   | >8-9 years                                   | 11        | 18         |
|       |   | >9-10years                                   | 8         | 12         |
|       |   | >10-11 years                                 | 11        | 17         |
| 6.    | Total No. of students                               | 10-20  | 0         | 0          |
|       |   | 21-30  | 14        | 22         |
|       |   | 31-40  | 31        | 50         |
|       |   | 41-50  | 18        | 28         |
| 7.    | Exposure to information about Learning Disabilities | Books  | 15        | 24         |
|       |   | Web  | 12        | 19         |
|       |   | Journal/Newspaper                            | 3         | 5          |
|       |   | Any institution or workshop/training session | 0         | 0          |
|       |   | Previous knowledge                           | 33        | 52         |

**Table 2:** Socio-cultural and husband related characteristics of women who gave birth in the last one year in enemay district, northwest Ethiopia, 2019 (n=621).

| S.NO. | Range of scores | Test      | Mean | Median | Standard Deviation |
|-------|-----------------|-----------|------|--------|--------------------|
| 1     | 10-39           | Pretest   | 24.9 | 24     | 7.49               |
| 2     | 23-44           | Post Test | 39.4 | 41     | 5.3                |

**Table 3:** Mean, mean difference, standard error of mean difference from pre test to post test knowledge scores and 't' value on identification and care of children with selected learning disabilities among primary school children (N=63).

| Knowledge Test | Mean | Mean Difference | SEmd | "t" Value |
|----------------|------|-----------------|------|-----------|
| Pre Test       | 24.9 | 14.5            | 1.06 | 13.67*    |
| Post Test      | 39.4 |                 |      |           |

't' value for df(62) level= 2.00, P<0.05=significant at 0.05 level

**Table 4:** Median and standard deviation of pretest and post test attitude scores of primary school teachers.

| S.NO. | Range of scores | Test      | Mean  | Median | Standard Deviation |
|-------|-----------------|-----------|-------|--------|--------------------|
| 1     | 33-79           | Pretest   | 54.19 | 57     | 10.83              |
| 2     | 30-59           | Post Test | 39.86 | 38     | 7.97               |

**Table 5:** Mean, mean difference, standard error of mean difference from pre test to post test attitude score and 't' value on identification and care of children with selected learning disabilities among primary school children (N=63).

| Attitude Test | Mean  | Mean Difference | SEmd | "t" Value |
|---------------|-------|-----------------|------|-----------|
| Pre Test      | 57.19 | 17.33           | 1.55 | 11.18*    |
| Post Test     | 39.86 |                 |      |           |

't' value for df (62) level= 2.00, P<0.05=significant at 0.05 level

H2: The mean post test attitude score of school teachers will be significantly higher than their mean pretest attitude score after the administration of self-instructional module on identification and care of children with Selected Learning Disabilities as evident from structured attitude Likert scale at 0.05 level of significance.

The data presented in the table shows that the mean posttest attitude score (39.86) was lower than the mean pretest attitude score (57.19) with the mean difference of 17.33. The obtained mean difference was found to be statically significant as evidence from the 't' value of 11.18 at 0.05 level of significance.

Therefore obtained difference was the true difference and not by chance so the research hypothesis H2 was accepted and null hypothesis H02 was rejected. This shows that the self-instructional module was effective in enhancing the attitude of primary school teachers regarding identification and care of children with Selected Learning Disabilities. (Table 5).

## Discussion and Conclusion

The study is consistent with the study done by Sharma & Samuel who studied the awareness that teachers have about learning disability and the provisions made by the government and CBSE board. It was a cross sectional study with sample size of 100 teachers from private English medium schools in Ludhiana, Punjab. They concluded that although the teachers claimed to have knowledge regarding Learning disability but they only had a vague idea about it, only a few teachers were aware about the provisions provided by the government. Most of the teachers blamed the student's attitude and home environment for performing poorly in studies [9].

A study was conducted by Sharma on, 'The attitude of the teachers towards the disabled'. The study examined how is the attitude of teacher's related to various background factors, and the factors responsible for bringing about changes in the attitude of teachers.

She reported that: the willingness of teachers to include children with special education needs (SEN) in general class depended on children's disability conditions. Teachers had positive attitude towards some children with specific Disabilities like visual and hearing Disabilities. Attitudes were less positive towards the intellectually impaired and those behavioral problems and the majority of the teachers felt the need for change in the school and classroom infrastructure [10].

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