

## Research Article

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# Effectiveness of A Teacher Enrichment Programme on Enhancing Knowledge of Learning Disabilities Among Primary School Teachers

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## Abstract

**Introduction:** Learning disabilities (LD) encompass a spectrum of challenges in reading, writing, mathematics, listening, speaking, and reasoning. These difficulties are neurological in origin and are not related to low intelligence or motivation. Early identification and support, especially at the primary school level, are critical and hinge upon the knowledge and skills of educators. However, a shortage of teachers trained in LD poses a significant challenge.

**Aim:** This study evaluates the effectiveness of a Teacher Enrichment Programme in improving the knowledge of primary school teachers regarding learning disabilities.

**Methods:** A post-test-only experimental design was employed in May 2022. A total of 120 primary school teachers from the Chinmaya Vidyalaya Group of Schools, Kolar, were randomly selected. A structured, self-administered questionnaire captured socio-demographic data and assessed knowledge of learning disabilities. Data were analyzed using descriptive and inferential statistics.

**Results:** Most participants (55%) were aged 31-40 years and predominantly female (87.5%). The majority (66.7%) held undergraduate degrees. Knowledge assessment revealed that 63.4% of teachers had moderately adequate knowledge, 25.8% had adequate knowledge, and 10.8% had inadequate knowledge. The mean knowledge score was 12.18 (SD = 2.51), with a variance of 6.73.

**Conclusion:** The Teacher Enrichment Programme effectively enhanced teacher knowledge of learning disabilities. Integration of LD-focused modules in teacher education and broader stakeholder awareness initiatives are recommended.

**Keywords:** learning disabilities; awareness; teacher enrichment programme; school teachers; knowledge enhancement

## Introduction

Learning disabilities (LD) are neurodevelopmental disorders that affect a child's ability to interpret and process information, thereby impacting skills such as reading, writing, speaking, listening, and reasoning. These disorders are not indicative of a child's intelligence or motivation levels but rather stem from differences in brain functioning. If unaddressed, LD can result in poor academic performance and reduced self-esteem.

Primary school years are critical for identifying and supporting children with LD. Teachers play a vital role in this early detection. However, many educators lack adequate training to recognize and respond appropriately to LD, resulting in mislabeling, under-identification, or inappropriate interventions. This study aims to evaluate the effectiveness of a Teacher Enrichment Programme designed to improve primary

school teachers' knowledge about learning disabilities.

Despite increasing awareness about inclusive education, many primary school teachers lack sufficient knowledge and skills to identify and support students with learning disabilities. This gap often leads to delayed interventions, mislabeling of students, and inadequate classroom support, ultimately affecting the academic and emotional development of these children. While teacher training is a critical factor in improving classroom practices, professional development opportunities specific to learning disabilities remain limited or insufficient in many educational systems.

Children with learning disabilities often face challenges in forming peer relationships and are at a higher risk of leaving school before graduation. However, educators-starting as early as preschool-can play a crucial role in recognizing the early warning

signs of learning disabilities and related conditions. By identifying these signs early and communicating their observations to parents, educators can help ensure that children receive the support and interventions they need to succeed academically and socially.

### Need for the Study

National Institute of Mental Health and Neurosciences (NIMHANS, 2015) reported that nearly 10-12% of Indian school-going children suffer from learning disabilities, yet less than 30% of teachers could correctly identify key signs and symptoms. A study by Sharma & Saini (2020) in Haryana found that only 25% of primary teachers had undergone any training related to learning disabilities, and knowledge scores were significantly low among untrained teachers.

According to NCERT (2021), teacher education programmes often lack specialized modules on inclusive education, particularly LDs, leading to gaps in classroom handling of diverse learners. A research article by Rao et al. (2019) evaluating a similar intervention in Andhra Pradesh revealed a significant increase in teachers' knowledge scores ( $p < 0.01$ ) post-training. The UNESCO State of Education Report for India (2022) emphasized the urgent need to enhance in-service training to build teacher capacity for inclusive education.

Learning disabilities (LDs) are neurologically-based processing problems that can interfere with learning basic skills such as reading, writing, or math. Despite increasing awareness, many primary school teachers in India lack adequate knowledge to identify, understand, and manage students with LDs. This gap is more pronounced in semi-urban and rural areas such as Kolar, Karnataka.

Teachers are the first point of contact in a child's academic journey. When equipped with the right knowledge and skills, they can play a pivotal role in early identification and intervention. However, several studies and educational surveys highlight insufficient teacher training in this domain. In Kolar district, educational development is often challenged by limited professional development opportunities for teachers. A Teacher Enrichment Programme (TEP) focused on LDs can significantly empower teachers to better address the diverse needs of learners, ultimately leading to improved academic outcomes and inclusivity.

A structured Teacher Enrichment Programme (TEP) designed to address this knowledge gap could

potentially improve teachers' understanding and handling of learning disabilities. However, empirical evidence on the effectiveness of such programmes in enhancing teachers' knowledge remains sparse. There is a pressing need to evaluate whether targeted enrichment programmes can significantly improve primary school teachers' competence in recognizing and addressing learning disabilities.

Therefore, this study seeks to examine the effectiveness of a Teacher Enrichment Programme in enhancing the knowledge of primary school teachers regarding learning disabilities, with the aim of contributing to more inclusive and supportive classroom environments

### Statement of the Problem

"A study to evaluate the Effectiveness of a Teacher Enrichment Programme on Enhancing Knowledge of Learning Disabilities among Primary School Teachers in selected schools at kolar,"

### Objectives of the Study

- To assess the baseline knowledge of primary school teachers regarding learning disabilities.
- To implement a structured Teacher Enrichment Programme focused on learning disabilities.
- To evaluate the effectiveness of the enrichment programme in enhancing teachers' knowledge post-intervention.
- To identify the association between socio-demographic variables and the knowledge gain post-intervention.
- To recommend sustainable teacher development practices for handling learning disabilities in primary schools.

**Null Hypothesis ( $H_0$ ):** There is no association between socio-demographic variables of school teachers and knowledge level post-intervention.

## Materials and Methods

### Research Design

A post-test-only experimental design was adopted for this study, conducted in May 2022. This design was chosen to measure the knowledge of learning disabilities among participants after a specific intervention or exposure, without administering a pre-test, to reduce potential testing effects and pre-test sensitization.

### Study Setting and Participants

The study was conducted among primary school teachers from the Chinmaya Vidyalaya Group of

Schools located in Kolar district, Karnataka, India. A total of 120 teachers were randomly selected using a simple random sampling method to ensure the representativeness of the sample and to minimize selection bias.

## Inclusion and Exclusion Criteria

### Inclusion Criteria

- Teachers currently employed in primary sections (grades 1-5).
- Those willing to participate in the study and available during the data collection period.

### Exclusion Criteria

- Teachers on leave or not involved in academic instruction during the data collection phase.
- Teachers from other branches or educational levels (e.g., high school, pre-primary).

### Data Collection Tool

Data were collected using a structured, self-administered questionnaire developed specifically for the study. The questionnaire comprised two sections: *Socio-Demographic Profile*: Including variables such as age, gender, years of teaching experience, educational qualification, and prior training on learning disabilities (if any).

*Structured Knowledge Questionnaire Assessment*: A set of 50 multiple-choice and closed-ended questions designed to assess participant's knowledge of learning disabilities. The items covered definitions, types, signs and symptoms, causes, and basic management strategies of learning disabilities in children.

### Data Collection Procedure

Participants were briefed about the purpose of the study and provided with instructions for completing the questionnaire. Written informed consent was obtained from all participants. The questionnaire was distributed and collected in person by the researchers within a single session to ensure a high response rate and to address any queries promptly. Teacher Enrichment Programme: The Teacher Enrichment Programme consisted of interactive sessions for 90 minutes focused on: Definition and types of learning disabilities. Signs and symptoms. Classroom strategies for support. Referral procedures and inclusive education frameworks.

### Data Analysis

Collected data were coded and entered into Microsoft Excel and analysed using Statistical Package for the Social Sciences (SPSS) version 23. Descriptive statistics (frequencies, percentages, means, and

standard deviations) were used to summarize socio-demographic characteristics and knowledge scores. Inferential statistics such as the Chi-square test were employed to assess the associations between socio-demographic variables and knowledge scores.

## Results

Distribution of Socio-Demographic Characteristics of school teachers, the data reveals the profile of the study participants, most of whom are teachers employed in private schools. The majority (55%) fall within the 31-40 age group. Gender distribution shows a significant skew, with 87.5% being female, indicating that the teaching profession in these private institutions is predominantly female-dominated. In terms of educational attainment, 66.7% hold undergraduate degrees, suggesting that most participants meet the minimum qualification requirements for teaching positions in private schools, though there may be scope for further professional development or higher education.

A large majority (95.8%) of the respondents identify as Hindu. Urban residence accounts for 70% of the participants, implying that the study mostly involves teachers working in urban-based private schools. All participants (100%) are employed in private schools, which is a key feature of the sample. Regarding family structure, 71.7% belong to nuclear families, a common trend in urban settings. In terms of employment type, 53.3% are temporary employees compared to permanent staff. Regarding teaching levels, 37.5% teach both lower and upper primary, which may suggest flexible staffing roles. Experience levels show that 35% have 6-10 years of experience, indicating a reasonably seasoned workforce. Lastly, 56.7% serve as both class and subject teachers, suggesting dual responsibilities.

Knowledge Distribution among Teachers: Adequate Knowledge (25.8%): Nearly one-fourth of the teachers achieved a high level of understanding, suggesting that the programme was successful in significantly improving knowledge for a substantial portion of participants. Moderately Adequate Knowledge (63.4%) where the majority of teachers fell into this category, indicating a meaningful gain in understanding, Inadequate Knowledge (10.8%): Only a small percentage remained with low levels of knowledge, Mean Knowledge Score: 12.18 out of possible 24: This average suggests a moderate-to-good level of knowledge post-intervention, with Standard

Deviation: 2.51 and Variance: 6.73: The moderate spread of scores indicates some variation in how teachers benefitted from the programme but overall points toward consistent gains. Score Range of 12 relatively wide range implies that while some teachers excelled, others still lagged, highlighting the need for

differentiated follow-up support or training. And a manageable variance in outcomes, collectively demonstrates the effectiveness of the enrichment programme in enhancing teacher knowledge of learning disabilities.

**Table 1:** Frequency and percentage distribution of level of knowledge of school teachers after a Teacher Enrichment Program. N=120.

Sl. No	Level of knowledge	Frequency (f)	Percentage (%)
1	Adequate Knowledge	31	25.8%
2	Moderately Adequate Knowledge	76	63.4%
3	Inadequate Knowledge	13	10.8%

Association between socio-demographic variables and knowledge gain post-intervention, through Chi-square test, the results revealed that Age and education level showed a statistically significant association at p-values ( $< 0.05$ ) with knowledge gain post-intervention, indicating that younger teachers or those with higher qualifications tended to benefit more from the intervention. Gender and religion were not significantly associated with knowledge outcomes. Teachers from urban areas, with permanent jobs, and those serving as class and subject teachers exhibited better knowledge improvement, showing a significant relationship with these variables.

An ANOVA revealed a statistically significant difference in knowledge scores across different education levels ( $F(2, 117) = 5.32, p = 0.006$ ). Post-hoc analysis showed that participants with postgraduate degrees scored significantly higher than those with only undergraduate degrees. No significant association was observed between gender and knowledge score ( $t(118) = 1.12, p = 0.26$ ).

## Discussion

The results highlight the effectiveness of structured teacher training programmes in enhancing awareness and understanding of LD. The fact that over 89% of teachers achieved moderate to adequate knowledge levels underscores the value of targeted professional development. Previous literature also supports that teacher training is essential for early identification and intervention (Smith & Tyler, 2019; Sharma et al., 2021). Without proper training, teachers may overlook signs or misinterpret learning difficulties as behavioral issues or laziness. The study also exposes a gap in pre-service teacher education, which often lacks dedicated modules on learning disabilities. Hence, it

is crucial to institutionalize LD-focused training at both pre-service and in-service levels.

## Conclusion

The Teacher Enrichment Programme significantly improved the knowledge levels of primary school teachers regarding learning disabilities. Empowering teachers with the right knowledge and tools can ensure early identification and support for children with LD, promoting better academic and psychosocial outcomes. The Mental Health program must be focused not only on those students having learning disabilities, but also on the rest of the student population as well. Teaching empathy, inclusivity and compassion is key to create a safe bully free learning environment.

## Recommendations

Integration of LD modules in pre-service teacher education. Regular in-service training programmes across schools. Collaboration with psychologists and special educators for practical workshops. Community awareness campaigns involving parents, peers, and stakeholders to foster inclusivity.

## Limitations

Post-test-only design limits pre-post comparison. Self-reported data may be subject to bias. Conducted in a single school group, limiting generalizability.

## Declarations

### Acknowledgement

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### Source of Funding

Self.

### Conflict of Interest

The authors declare no conflict of interest.

### Ethical Considerations

Ethical clearance was obtained from the relevant Institutional Review Board. Permission was also secured from the administrative authorities of the Chinmaya Vidyalaya Group of Schools. Participation was entirely voluntary, and confidentiality and anonymity were strictly maintained throughout the research process.

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