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AWARENESS ON LEARNING DISABILITY AMONG PRE-PRIMARY AND PRIMARY SCHOOL TEACHERS: A COMPARATIVE STUDY

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ABSTRACT

Learning Disabilities refer to a number of disorders which may affect the acquisition, organization, retention, understanding or use of verbal or nonverbal information. These disorders affect learning in children who otherwise demonstrate at least average abilities essential for thinking and reasoning. Kumar & Suman (2017) study found that "the prevalence rate of students with learning disability varies from 10.76 percent to 13.41 percent and early diagnosis of learning disability in children is critically important to identify and suggest remedial solutions at the right time, so these LD learners successfully learn and become winner in the society" Teachers play an important role in any educational system. Teacher and Speech Therapist is an artist who moulds and shapes the physical, intellectual and moral powers of children. In any normal school environment one can find Children with mild learning disabilities easily. If the learning disabilities are unnoticed, unanswered, ignored and such children's needs are not met in regular class rooms or special education with in the school; we cannot fulfill the aim of universalization of elementary education and equalization of educational opportunity. It brings scholastic backwardness in these learning disabled children.

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At pre-primary and primary level, the teachers and Speech Therapist should play a vital role in identifying children with learning difficulties. The aim of the study is to assess the level of awareness about learning disabilities among the pre-primary and Primary School teachers. Descriptive survey design was used. The universe of the present study consists of pre-primary (n=30) and primary (n=30) school teachers working in Mumbai. A questionnaire was developed and validated by 10 teachers' professionals and Speech Therapist as a tool for the study. Questionnaire was administered among the subjects and appropriate statistical analysis was done to prove the hypothesis undertaken in the study. The study results highlighted the awareness among the pre-primary and primary school teachers was not statistically significant hence hypothesis was not rejected. Overall, this study supported the fact that the Pre-Primary and Primary teachers are comparable with respect to their awareness about learning disabilities. The present study has the wider implications in the education of children who has the learning difficulty for their planning and special care in the school education and also take an early appropriate measure to start with the therapeutic intervention for better development of the children with learning disabilities.

Keywords: Awareness, knowledge, learning disability, Pre-primary and Primary school teachers.

Introduction:One of the most and simplest effective ways to expand and create awareness is by empowering teachers in schools to be able to identify the early warning signs of learning disabilities for early intervention and education. It is needed to be understood and extremely important to reach out to the thousands of teachers who are dealing with children afflicted by any form of Learning Disability in regular schools. Teachers are the first professionals who can be able to screen the children who are struggling in their classrooms learning. A child with learning disability needs early assessment and support hinges on the ability of teachers who can successfully identify on the problems of the LD first. Presently all research in the fields of neurological development and education puts tremendous emphasis on the

importance of early identification and intervention; hence arming regular school teachers with the ability to screen children of learning disability “at risk” is critical.

Inclusive education is schooling for the vast majority of children within a mainstream system, where all children including those with learning disabilities are given the opportunity and support to learn together in the same classroom. Nine out of ten children with learning disabilities are out of school, and 80 percent of all children with learning disabilities live in developing countries. They are often excluded from education and society due to physical, ideological, systemic, or communication barriers. In India, around 13 to 14 per cent of all school children suffer from learning disorders. Unfortunately, most schools fail to lend a sympathetic ear to their problems. As a result, these children are branded as failures in all academic programmes. The past decade has witnessed a sudden spurt in the recognition of learning disabilities in India. This sensitivity has benefited some children who have to cope with the invisible learning disability. Besides the growing awareness, there are still a number of misconceptions that are associated with the term 'learning disabilities'. The reasons for these misconceptions are manifold. Learning disabilities are heterogeneous with different manifestations. The hard fact is that learning disability (LD) is real and a stumbling block for a nation's development process. The question is why and how it affects development? A person can be of average or above-average intelligence, without any sensory problems (like blindness or hearing impairment) and yet struggle to keep up with people of the same age in learning and regular functioning.

According to the National Center for Learning Disabilities, LD is a neurological disorder that affects the brain's ability to receive, process, store and respond to information. The term learning disability is used to describe the seeming unexplained difficulty a person of at least average intelligence has in acquiring basic academic skills. These skills are essential for success at school and at workplace and for coping with life in general. LD is not a single disorder. It is a term that refers to a group of disorders in listening, speaking, reading, writing and mathematics. The other features of LD are (a) a distinct gap between the level of achievement that is expected and what is actually being achieved (b) difficulties that can become apparent in different ways with different people (c) difficulties with socio-emotional skills and behaviour. However, specific reading disabilities, in children and adults,

have been classified as 'dyslexia' or 'developmental dyslexia' or even 'specific developmental dyslexia'. These terms are in use interchangeably with LD.

Statement of the problem and objectives: The movement in India on LD is of a recent origin and is today comparable with that of its Western counterpart. Reports of lower incidences of LD in the Eastern world were attributed by Western scholars to the general lack of awareness and sensitivity among educationists to the specific difficulties faced by children learning to read in overcrowded classrooms. Ironically, policy related to learning disability is yet to see the daylight. In absence of such a policy and incongruous environment, children with LD cannot be rehabilitated in regular schools. Though isolating such children from regular schools for training at special schools is not a good precedent, it is the best available option in the prevailing conditions and inevitable too. The good news is that during the past three decades, RCI and Ministry of HRD, Ministry of Social Justice and Empowerment, Government of India with the help and intervention of country's strong academic community and specialists studied the instructional techniques, strategies and conditions that best enable students to learn critical skills, especially in the area of reading.

To explain the above queries is that teachers today are challenged (and charged) to find ways to identify students who struggle and provide them (and their peers) with the very best instruction possible. That is, teaching based on the highest quality research and professional wisdom, and that takes into account not just subject matter, but a student's rate of learning and his or her ability to achieve the highest standards possible within the general education curriculum. Teachers also are challenged due to the lack of awareness and resources in schools. The best sources of assistance and the most promising pool of resources are to be found right there in the school. General and special educators working creatively, sharing ideas and strategies, tapping related services providers and others including speech-language therapists, psychologists and occupational therapists, implementing progress-monitoring activities and sharing responsibility for needed adjustment in instruction. The nation's commitment towards achieving the goal 'education for all' remains unfulfilled and will remain so if educational opportunities is not extended to all school-going children including children with LD. More attention to these children by extending support to institutions and schools that help children with LD will

certainly improve the scene. There are institutions which have trained personnel who could help assess the extent of damage and treat these children accordingly. Government of India should envisage a national debate on the rehabilitation issue of learning disability children in the classroom.

The aims and objectives of the present study was to study and compare the awareness level of pre-primary and primary school teachers about learning disability. Accordingly, a hypothesis was taken that there will be no significant difference on the awareness level of pre-primary and primary school teachers about learning disability. If the children with learning disabilities are ignored, unnoticed and unanswered such children's needs are not met in regular classrooms or special education within the school; then it cannot be fulfilled the aim of universalization of elementary education and equalization of educational opportunity to children with special needs. Hence, such study is important and undertaken for better clinical implications.

Review of Literature: In India, review of literature revealed that at least five students in every average-sized class have Learning Disabilities (Thomas, Bhanutej, & John, 2003). But these students are often unrecognized in the crowded schools due to the invisible nature of the disability unlike other visible disabilities. Students with Learning Disabilities have problems in academic areas for a long time, but those problems are often unnoticed by the teachers in the crowded classrooms (Karanth, 1998). From the literature it is found that approximately 10-14% of the 416 million children in India have LD (Krishnan, 2007; Krishnakumar, 1999; Mehta, 2003). Dyslexia is one of the most common SpLDs (Specific Learning Disabilities), affecting 80% of all those identified as Learning Disabled (Karande, Sawant, Kulkarni, Galvankar, & Sholapurwala, 2005, p. 96). According to a study conducted in South India, the incidence of dyscalculia was reported to encompass 6% of all school-aged children (Ramaa & Gowramma, 2002). There is a limited awareness of LD among parents, teachers, and educational administrators, and the lack of teacher training in the area of Learning Disability (LD).

Keivan Kakabaraee, Ali Akbar Arjmandnia, and Gholam Ali Afrooz (2012) study attempted to investigate the awareness teachers in identifying children with learning disabilities. In their descriptive research, 291 teachers of primary school were

selected by multi-stage sampling. Data analyzed with t-test, Pearson Correlation showed that more than 50 percent of teachers have appropriate knowledge to the nature of learning disability and 82/1 have awareness of etiology learning disability. Finally, more than 90 percent of teachers had not acceptable ability in identifying students with learning disorders. There are significant differences between gender and level teaching of teachers with the knowledge of the etiology learning disabilities.

In an another study done by ArunachalamMadhamani and Alex Joseph (2021), revealed the **Assessment of Knowledge and Awareness of Public School Teachers Towards Learning Disabilities in Children - An Institutional Based Cross-Sectional Study in Dharmapuri District, Tamil Nadu. Study found that** knowledge of teachers regarding learning disabilities among children was found to be moderate among the majority of the teachers (45%), whereas substantially large number of participants showed an adequate level of knowledge (33.5%), and rest of the participants (21.5%) have shown an inadequate level of knowledge. A vast majority of participants (73.5%) were aware of the learning disability amongst children. The educational qualification (P value < 0.001) and experience (P value < 0.05) of the teachers had a significant association between knowledge level. Hence, findings concluded that it is essential to spread the awareness and knowledge about the learning disabilities of children among teachers. The government should take necessary policy directions in raising awareness and knowledge of various learning disabilities among parents, teachers and peer groups so that these children will be handled in a better way in the social circle. This also should be included as a part of curriculum in teachers' training programs.

Methodology: A descriptive survey designed was used in the present study. A self-developed questionnaire was used as a research tool in the present study containing as all aspects of learning disability. The questionnaire was validated by 5 Head Teachers and Speech Therapists having more than 5 years experiences in the field of education at 3-point rating scale. The questionnaire rated as highly appropriate were finally selected. Total 60 subjects were selected with purposive sampling basis into two groups i.e Pre-primary ($n=30$) and Primary ($n=30$) school teachers. The correct answer was given as one mark and incorrect answer was given zero mark for analysis and interpretation of the data.

Sampling

A technique in which a subgroup of the population was selected to answer the survey questions; the information collected can be generalized to the entire population of interest. Sampling methods are classified as either probability or nonprobability. In probability samples, each member of the population has a known non-zero probability of being selected. Probability methods include random sampling, systematic sampling, and stratified sampling.

Purposive sampling is a sampling technique in which researcher relies on his or her own judgment when choosing members of population to participate in the study. A purposive sample is a non-probability sample that is selected based on characteristics of a population and the objective of the study. Purposive sampling is also known as judgmental, selective, or subjective sampling. This type of sampling can be very useful in situations when you need to reach a targeted sample quickly, and where sampling for proportionality is not the main concern. There are seven types of purposive samples, each appropriate to a different research objective. Survey research is a commonly used method of collecting information about a population of interest. There are many different types of surveys, several ways to administer them, and many methods of sampling.

Research Tool:

- 1. Development of Research Tool:** As a Tool of the present research, a questionnaire focusing on teachers' awareness of integration of inclusion policy was developed. It consisted of a number of questions that investigated teachers' awareness, competencies, problems and usage.
- 2.** The purpose of the study was to investigate deeply into teachers' thoughts, feelings, behaviours, and awareness toward teaching in an inclusive classroom setting. Participants selected through purposeful sampling were required to meet specified criteria to be a part of the study.
- 3.** The first goal of my study was to understand teachers' attitudes, beliefs, and awareness of working in an inclusion classroom setting for students with Learning Disabilities (LD). The second reason is that the present study was focused on a particular specific group.

About Questionnaires: A predefined series of questions used to collect information from individuals as per the objectives of the research study. The questionnaire has the various advantages and disadvantages which are as follows:

(a) Advantages of questionnaires

- Large amounts of information can be collected from a large number of people in a short period of time and in a relatively cost-effective way.
- Can be carried out by the researcher or by any number of people with limited affect to its validity and reliability.
- The results of the questionnaires can usually be quickly and easily quantified by either a researcher or through the use of a software package.
- Can be analyzed more 'scientifically' and objectively than other forms of research.
- When data has been quantified, it can be used to compare and contrast other research and may be used to measure change
- Positivists believe that quantitative data can be used to create new theories and / or test existing hypotheses.

(b) Disadvantages of questionnaires

- Is argued to be inadequate to understand some forms of information i.e. changes of emotions, behaviors, feelings etc.
- Phenomenologists state that quantitative research is simply an artificial creation by the researcher, as it is asking only a limited amount of information without explanation.
- Lacks validity in research in variables.
- There is no way to tell how truthful a respondent is being used.
- There is no way of telling how much thought a respondent has put in
- The respondent may be forgetful or not thinking within the full context of the situation.
- People may read differently into each question and therefore reply based on their own interpretation of the question - i.e. what is 'good' to someone may be 'poor' to someone else, therefore there is a level of subjectivity that is not acknowledged.
- There is a level of researcher imposition, meaning that when developing the questionnaire, the researcher is making their own decisions and assumptions as to what is and is not important...therefore they may be missing something that is of importance.
- The process of coding in the case of open-ended questions opens a great possibility of subjectivity by the researcher.

- (Ref K. Popper, *The Logic of Scientific Discovery* (1959), reprinted (2004) by Routledge, Taylor & Francis S. Ackroyd and J. A. Hughes, *Data Collection in Context* (1981) Longman.

Validation of Questionnaire: The questionnaire developed by the researcher was validated by 5 Head Teacher and Speech Therapists working in the school having more than 5 years' experience in the field of education. The questionnaire was rated in 3-point rating scale i.e. (i) Highly Appropriate (ii) Appropriate and (iii) Less Appropriate respectively.

Finalization of Questionnaire: The questions which were rated as high appropriate selected finally as a tool of the present research study.

Subject for the Study:

The subject of the present study was divided into two groups as under:

1. **Pre-primary Teachers:** 30 Pre-primary Teachers were selected for the study based on the following criteria:
 - (a) Teachers were working in Integrated Pre-Primary schools
 - (b) Age groups were 25-45 years.
 - (c) Qualifications were having Pre-Primary Teachers Training Diploma / D.Ed.
 - (d) 2 years' Experience as Pre-primary Teachers.
 - (e) Teachers were working in an English Medium School.
 - (f) All Teachers were normal population.
 - (g) No disabled Teachers were included in the study.
 - (h) Both males and females Pre-primary Teachers were included.
 - (i) Teachers have handled students with Learning Disabilities in Schools.
2. **Primary Teachers:** 30 Primary Teachers were selected for the study based on the following criteria:
 - (a) Teachers were working in Integrated Primary schools
 - (b) Age groups were 25-45 years.
 - (c) Qualifications were having Primary Teachers Training Diploma
 - (d) Minimum 2 years' experience as Primary Teachers.
 - (e) Teachers were working in an English Medium School.
 - (f) All Teachers were normal population.
 - (g) No disabled Teachers were included.

- (h) Both males and females Primary Teachers were included.
- (i) Teachers have handled students with Learning Disabilities in schools.

Procedure for data collection and approach

The data collection procedure was a major activity in the research. A systematic scientific approach was followed during data collection both from Pre-Primary and Primary Integrated Schools where Teachers were dealing with students with Learning disabilities (LD). The procedure followed during data collection is as discussed under:

- (1) After the approval of the research proposal, Permission from the Principal was taken from both Pre-Primary and Primary Integrated Schools to conduct the data collection in research within Mumbai area.
- (2) With approval a questionnaire was provided to Pre- Primary and Primary Integrated school teachers.
- (3) Teachers of both Pre-primary and Primary Integrated schools in a small, urban school district were chosen as the population for this study.
- (4) The questionnaires for both Pre-primary and Primary integrated schools teachers were given personally by the researcher.
- (5) All the Pre-primary and Primary Integrated school teachers were told about the purpose and aims of the study. The questionnaire for teachers was anonymous. Teachers answered the questions individually.
- (6) All the Pre-primary and Primary integrated schools Teachers were advised to go through the questionnaire and filled the questionnaire as asked and requested to return the filled in questionnaires within 7 days.

Ethical considerations

This study considers strictly the ethical issues related to the research. The purpose, risks, and benefits of the study were explained to the teachers before they decided to participate in the study. The teachers were assured that their participation was voluntary. All the information will be kept confidential and no information will be used for any other purposes except the present research.

Scoring Pattern:

- Closed ended questionnaire with “Yes” and “No” options.
- “Yes” option was given “1” mark and “No” Option was given “0” mark for the purpose of data analysis.

Data Analysis

Analysis is crucial process of research. Analysis of data refers to organizing the data, tabulating it into a manageable and understandable form. Analysing of data consists of descriptive analysis and inferential analysis. The researcher will use the following descriptive and inferential statistical technique to tabulate result for data analysis and draw the conclusion. In the present study the data was analysed using the following Techniques of Data analysis such as (i) Descriptive Analysis (ii) Inferential Analysis (iii) t-test or any appropriate statistical analysis to compare the data.

Results and Discussion: The t-value associated with the mean difference awareness (-0.3) is not statistically significant ($t(58) = -0.52, p > 0.05$). Therefore, the null hypothesis of equal mean awareness score for two levels of teachers is not rejected. In other words, the mean awareness score for pre-primary teachers ($M = 17.2, SE = 0.40$) and primary teachers ($M = 17.5, SE = 0.42$) are comparable. The CI (95%) for the difference is -1.45 to 0.85. Thus, the difference between the means of two groups could be as low as approximately 1 and as large as approximately 1.5, in the population. The effect size (r) was 0.04, revealing almost no effect, of the teacher' levels on the awareness scores. Overall, this study supported the fact that the Pre-Primary and Primary teachers are comparable with respect to their awareness about learning disabilities.

Presentation of the Results:

Descriptive statistic: The important relevant statistic for the awareness score is presented in Table 1 for two levels of teachers.

Table 1: Descriptive Statistics for Awareness Scores among Pre-primary and Primary school teachers.

Teacher Level	N	Mean	Std. Deviation	Std. Error Mean	Minimum	Maximum	Percentiles		
							25	50 (Median)	75
Pre-Primary	30	17.23	2.176	0.397	14	22	15	17	19
Primary	30	17.53	2.285	0.417	12	21	16.5	18	19.25

The descriptive statistics presented in Table 1 reveal minor differences in the awareness scores obtained by two levels of pre-primary and primary school teachers, on important values presented. The mean awareness score is higher (17.53) for the Primary teachers compared to their (17.23) pre-primary counterparts. The standard deviations are almost comparable (2.18 for Pre-Primary and 2.29 for Primary), indicating comparable variation in the distribution of the scores. Though the minimum and maximum scores are higher for the Pre-primary compared to the primary; this trend is reversed on the three percentiles presented. These differences could be seen in the boxplots presented in Figure 1.

Boxplots for Distributions of Awareness Score (Out of 25) by Teacher Level

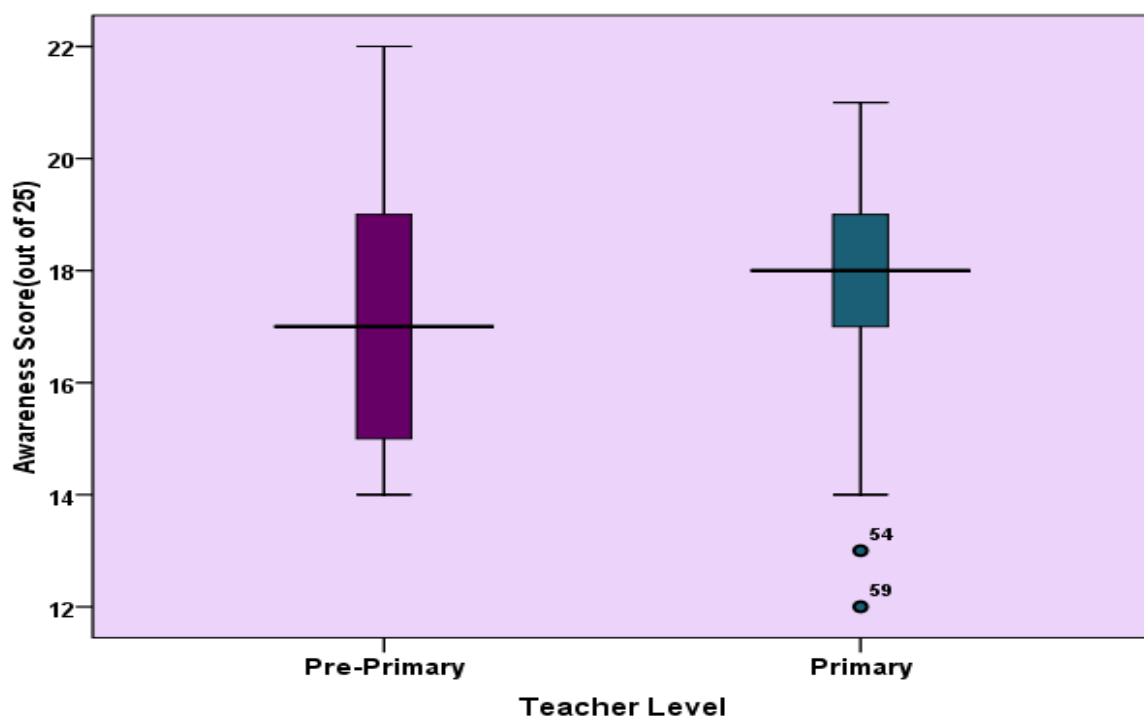


Figure 1: Boxplots for Distribution of Awareness Score (out of 25) by pre-primary and primary school Teacher Level

The boxplot for the pre-primary is quite normal irrespective of the little positive skewness. As against this the boxplot for the Primary reveal two outliers at the lower end of the scale (Case 59 with a score 12 and case 54 with a score 13). Except the outliers the distribution for the Primary is quite normal. The heights of the boxes are comparable, showing comparable variances in the two distributions. Moreover, the two distributions overlap indicating comparable means.

The results of the independent t-test for awareness scores are presented in Table 2.

Table 2: Results of the Independent t-test for Awareness Scores among pre-primary and primary school teachers

T	df	p-value (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper
-0.521	58	0.605	-0.3	0.576	-1.453	0.853

The t-value associated with the mean difference awareness (-0.3) is not statistically significant ($t(58) = -0.52, p > 0.05$). Therefore, the null hypothesis of equal mean awareness score for two levels of pre-primary and primary school teachers is not rejected. In other words, the mean awareness score for pre-primary teachers ($M = 17.2, SE = 0.40$) and primary teachers ($M = 17.5, SE = 0.42$) are comparable. The CI (95%) for the difference is -1.45 to 0.85. Thus, the difference between the means of two groups could be as low as approximately 1 and as large as approximately 1.5, in the population. The effect size (r) was 0.04, revealing almost no effect, of the teacher' levels on the awareness scores. Overall, this study supported the fact that the Pre-Primary and Primary teachers are comparable with respect to their awareness about learning disabilities.

The present study highlighted that fact that almost all teachers claimed to be aware of learning disability though there was a difference in awareness level among pre-primary and primary school teachers on learning disability. However, on further questioning very few were actually able to clearly describe what they understood and of those who did, the answers were mostly a vague description of learning disability. Most of the teachers did not have a clear idea of the causative factors and blamed it either on the students' attitude and behavior in class or to the home environment and parental outlook towards a child's education. These findings compare with the descriptions of Sujathamalini (2010) and various unpublished dissertations from India and abroad. All these studies highlight that general school teachers may appear to have an idea of learning disability, but generally only have a superficial knowledge. Even recent studies from Mumbai by Dalwai et al (2011) indicated the deficiency in knowledge about learning disabilities among school teachers. The latter study from

Mumbai actually was carried out with school Principals, who would otherwise be expected to be the guiding source of information and awareness to the teachers employed in school. Hence, present study provides a valuable findings that there was a lack of awareness level among the pre-primary and primary school teachers which was found a mean difference and not found statistical significant and hypothesis was not rejected. However present study was conducted with a small sample and based on the fact it cannot generalized which needs to be reviewed with large sample and taking other variables as well. Similarly study reported by Arunachalam Madhamani and Alex Joseph (2021), revealed the that knowledge of teachers regarding learning disabilities among children was found to be moderate among the majority of the teachers (45%), where as substantially large number of participants showed an adequate level of knowledge (33.5%), and rest of the participants (21.5%) have shown an inadequate level of knowledge. A vast majority of participants (73.5%) were aware of the learning disability amongst children. The educational qualification (P value < 0.001) and experience (P value < 0.05) of the teachers had a significant association between knowledge level. Present study also found that similar results which can correlate with the study reported and agrees with the findings of the study.

Limitation of the Study:

- (i) The study is limited to Mumbai Inclusive School only.
- (ii) Only Pre-primary and Primary school teachers were taken as sample in the study.
- (iii) Sample size of the study was limited.
- (iv) Male teachers were not considered in the study.
- (v) Study was done only with the teacher having dealt with Learning Disability. Other disability were not considered.
- (vi) Sample was taken only through the English Medium School. Other School from various vernacular language schools were not considered.

Recommendation of the further Study

- (i) The study can be extended out of Mumbai Inclusive School.
- (ii) Other than Pre-primary and Primary teachers i.e higher school teachers can be taken as sample for further study.
- (iii) With larger sample size of the study can be extended to obtain a sizable scientific information about the teacher perception on learning disability.

- (iv) Both Male and Females teachers can be taken in the study and compare their perception levels on learning disability.
- (v) Study can be done extending with other disability areas such as hearing impairment, mental retardation, locomotors disability, visual impairment and other multiple disability etc.
- (vi) Study can be done in all types of school teachers such regional medium, rural-urban and government and non-government school teachers.

Usefulness of the study

The significant implication of the study shed lights on the facts that Regular school teachers need to have more awareness on LD and teaching strategies to remediate skill deficit among LD students. School authorities have to provide enough support systems like resource rooms and special education services to improve the quality of training and also improve their skills. Improvement in teacher's monetary compensation will bring in commitment to perform better. Another component for negative perception among the teachers is their low remuneration. This was mainly observed in Indian schools and was also affecting their motivation level.

It is also necessary for pre-primary and primary school teachers to be more familiar with students with learning disability and be more favorably capable of identification and recognition of these kinds of students in their class in order to prevent the incidence of further mental and social damage by adopting particular educational, rehabilitation and treatment methods based upon the personal needs of the student. This important issue undoubtedly cannot be accomplished without increasing the knowledge of trainers, teachers and parents who have the most effective relationship with the students and without the support of education and training authorities and programmers and other entities and related school or organizations.

Hence, present research findings concluded that it is essential to spread the awareness and knowledge more about the learning disabilities of children among pre-primary and primary school teachers. Further the government and local authorities may be advised to take necessary policy directions in raising awareness and knowledge of various learning disabilities among parents, school teachers, stake holders and peer groups so that these children can be handled in

a better manner in the social circle. This Learning Disability topic may be included as a part of school environmental curriculum in teachers' training programs too.

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