



To Evaluate The Effectiveness Of The Structured Teaching Programme On Knowledge Regarding Dyslexia Among Primary School Teachers In Selected Schools Of Navi Mumbai

Ms. Nilam Bhawar^{1*}, Dr Vaishali Jadhav²

^{1,*}Professor, Bharati Vidyapeeth (Deemed to be a University), College of Nursing, Navi Mumbai

Citation: Ms. Nilam Bhawar (2024) To Evaluate The Effectiveness Of The Structured Teaching Programme On Knowledge Regarding Dyslexia Among Primary School Teachers In Selected Schools Of Navi Mumbai. *Educational Administration: Theory and Practice*, 30(3), 1002-1007

Doi: 10.53555/kuev.v30i3.1436

ARTICLE INFO

ABSTRACT

Dyslexia is the most common of the language-based learning disabilities. According to the National Center for Education Statistics, 5% of all adults are “non-literate”, 20-25% of all adults can only read at the lowest level, and 62% of nonreaders dropped out of high school. 80% of children with an IEP have reading difficulty and 85% of those are Dyslexic. The study aims to evaluate the effectiveness of a structured teaching programme on knowledge regarding dyslexia among primary school teachers.

Material and methods: The research approach adopted for the study evaluative method to assess the objective by using Pre experimental research design. 200 primary school teachers, 100 control and 100 experimental group data are collected from Navi Mumbai by using a non-probability purposive sampling technique. Data was collected after Pre-test followed by a Structured teaching programme and post-test on 7th day.

Results: Findings related to the effectiveness of structured teaching programme mean scores- pre and post-test compared with control and experimental group shows difference was statistically significant ($p < 0.05$), for the control group, the mean pre-test and post-test total knowledge scores were 14.16 and 13.79, whereas experimental group it was 14.45 and 21.02 which shows an increase in knowledge after STP. Findings related to the association between pre-interventional knowledge score and their selected demographic variables did not show any significant difference.

Conclusion: This indicates that a structured teaching program helps to improve the knowledge of primary school teachers.

Keywords: Structured Teaching Programme, Knowledge Regarding Dyslexia, Primary School Teachers, effectiveness of structured teaching programme, Dyslexia

Introduction

Teacher plays an important role in student's life. A student at an early age is like a blank sheet that can be colored beautifully with the pool of teachers' knowledge. After family, the teacher paves the foundation for students' growth or can say they play a very crucial role in the foundation of society and ultimately nation, especially in a country like India which contributes the majority of the younger population. So, it's clear enough, that students should be developed and encouraged to learn in every part of the country and thus teachers become architects here to mold students by bearing responsibility on their shoulders¹. If teachers are unaware of major issues associated with learning, there won't be good learning for the students to develop and make them incapable of standing on their own feet in the near future.²

Dyslexia affects areas of the brain that process language. To improve a child's learning first teacher should possess sound knowledge regarding reading and writing problems.³ People with dyslexia are not able to pronounce words or sentences correctly due to failing to read correctly. It affects children differently according to their severity and majors done by parents and teachers. Few children with dyslexia can manage to learn as

they receive excellent instructions and are diagnosed early, but if not diagnosed it affects the child's self-image and they feel low and less capable of study which leads to poor academic performance and increases school dropouts.⁴

According to the National Assessment of Educational Progress (NAEP), all 4th ranking students are "below basic" reading skills are almost 38%. They are below the 40th percentile for their stage group. Nationwide 20% of the elementary school population is struggling with reading.⁵ In Mumbai, the study was conducted on learning disability. Researchers included students with difficulty in reading and writing and found that around 72.76 percent of students got lower grades due to learning problems.⁶

In small towns, there are lack of specialty clinics as well as trained personnel who are experts in the identification of learning difficulties, especially dyslexia. The study was conducted in schools of Bikaner City involving students from grades 3rd to 5th. Students underwent a set of questions called a screening tool for dyslexia and found that 48 students suffered from dyslexia.⁷

Need for the Study

An exploratory study was conducted to evaluate the awareness and attitude of primary school teachers toward learning problems in calculations at initial schooling. It feels that a learning disability is nothing but a cluster of symptoms that indicates difficulties faced by a child during conventional classroom instruction. Acquiring language skills such as reading, spelling, and writing comprehension becomes difficult for children during this phase. Students find it difficult to cope with the flow of the academic curriculum and secure poor marks due to difficulties in understanding basic concepts. As per the study, such a level of difficulty, which is not identified, can result in prolonged consequences like dropout & behavioral disorders.⁸

According to the Dyslexia Association of India, Children with academic difficulties and clumsy behavior, particularly accident-prone, are more likely to suffer from Dyslexia compared to normal children. International Dyslexia Association suggests a few dyslexic patterns in children such as frustration, depression, anxiety and self-doubt, low self-esteem is because of unawareness about own learning disabilities. Such children are sensitive and fragile which can only be managed by early diagnosis and effective knowledge of learning difficulties by teachers.

It follows from the above that all teachers need basic knowledge of the learning difficulties. The same conclusion can be drawn from a number of studies in which it was found that knowledge of teachers play crucial role in determining learning difficulties in early age.¹⁰

As per the above literature and researcher observation in school students and teachers, it is found that a research study can be done on teachers to enhance their knowledge about dyslexia and to make students' learning productive to stand them on their own feet. The researcher also has her own experience in teaching NGO, where the researcher found dyslexic children remained undiagnosed which led to poor performance and academic failure making the child quiet and depressed. This researcher's curiosity compelled him to pursue this subject as a research study to raise awareness, increase instructor understanding, and eventually make the students' lives better and brighter.

Aim of the Study

The main aim of the study was to evaluate the effectiveness of a structured teaching program on knowledge regarding dyslexia among primary school teachers in selected schools of Navi Mumbai.

Methodology

The evaluative research approach was adopted to determine the effectiveness of a structured teaching program on knowledge regarding dyslexia among primary school teachers. The quasi-experimental research design that is a non-randomized control group design used to test the hypothesis and achieve the desired objective. This study was proposed to be conducted among primary school teachers in selected schools in Navi Mumbai. 200 samples are those who teach in primary schools -1st to 4th standard in schools of Navi Mumbai. They were selected by a Non-probability purposive sampling method. Even after prior appointments, if subjects were found busy with their emergency work, care was taken not to interrupt them in their work, and again suitable time was taken.

The study tool was filled out personally by interviewing the subjects. The sample characteristics were described using frequency and percentage. Pearson's correlation coefficient was used to assess the effectiveness of structured teaching. The content validity and reliability of the tool were done, which suggested that the tool was reliable. The pilot study was done on 10 control groups and 10 experimental group samples and found that the study was feasible for the final study. The data obtained was analyzed in terms of the objective of the study using descriptive and inferential statistics. The plan of data analysis was developed under the excellent direction of experts in the field of nursing and statistics.

Results

Analysis of data related to demographic variables under study represents gender-wise distribution as the majority female 58% and 55% of the control and experimental group respectively. In age age-wise distribution of primary teachers Out of 100 control group participants, the majority of teachers 36-45 years were 44% whereas in 100 experimental participants, 40% belonged 25-35 years of age.

In the control group majority 42% of participants had 10-20 years of experience whereas in the experimental group, 37% of participants had less than 10 years of experience. 77% of control group participants and 89% of experimental group participants completed their D.Ed.

Whereas 23% and 11% of control and experimental group participants completed their M.Ed. Participants in the control group worked in the private sector 100% and 80% of the participants in the experimental group worked in the public sector and 20% in the private sector. % of the Control group teachers had 30 class strength, whereas 80% of the experimental participants had 30 students to handle and 20% of them had 60 children in their class. 75% and 25% of the control group participants teach in English and Marathi medium respectively whereas in the experimental group, 80% and 20% of participants teach in English and Marathi medium. Awareness regarding dyslexia data shows no one of the participants had attended any special training on dyslexia.

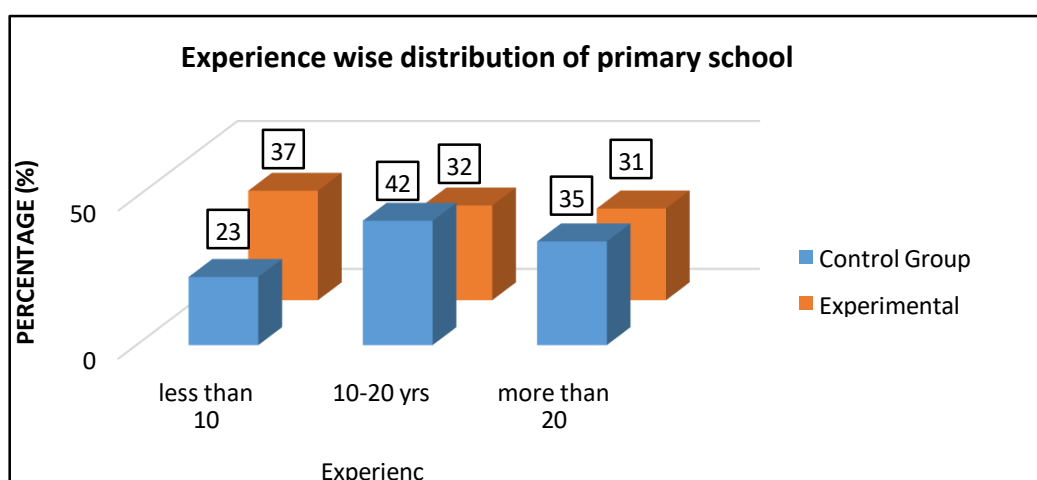


Figure 1 Experience-wise distribution of primary school teachers

Findings related to the knowledge before structured teaching program regarding dyslexia among primary school teachers show that there is no difference in the pretest scores between the participants in the control group and experimental group using as Mann-Whitney u test as the value is greater than 0.05.

Findings related to the knowledge after structured teaching program regarding dyslexia among primary school teachers. Level of knowledge after a structured teaching program regarding dyslexia among primary school teachers shows that by using a Mann-Whitney test to compare the means of two independent groups we found that there was a statistically significant difference in the mean knowledge scores between experimental and control groups. The p-value is less than 0.05 so there is an increase in knowledge after a structured teaching programme.

Domain-wise analysis of knowledge after STP regarding dyslexia among primary school teachers shows the meaning of dyslexia domain, the experimental group had a mean score of 2.59 whereas the control group had a mean score of 2.31. This difference was statistically significant ($p < 0.05$). For the domain type of dyslexia, the experimental group had a mean score of 2.9 whereas the control group had a mean score of 2.34. This difference was statistically significant ($p < 0.001$). For the risk factor domain of dyslexia, the experimental group had a mean score of 0.76 whereas the control group had a mean score of 0.43. This difference was statistically significant ($p < 0.001$). For misconceptions of the dyslexia domain, the experimental group had a mean score of

0.84 whereas the control group had a mean score of 0.59. This difference was statistically significant ($p < 0.001$). For signs and symptoms of the dyslexia domain, the experimental group had a mean score of 8.05 whereas the control group had a mean score of 4.03. This difference was statistically significant ($p < 0.001$). For the management of the dyslexia domain, the experimental group had a mean score of 5.87 whereas the control group had a mean score of 4.03. This difference was statistically significant ($p < 0.001$). The means of total knowledge score was 36.15 in the experimental group and 24.81 in the control group. Hence there was a statistically significant difference in the mean scores ($p < 0.001$).

Table 1 Domain-wise analysis of knowledge after STP regarding dyslexia among primary school teachers

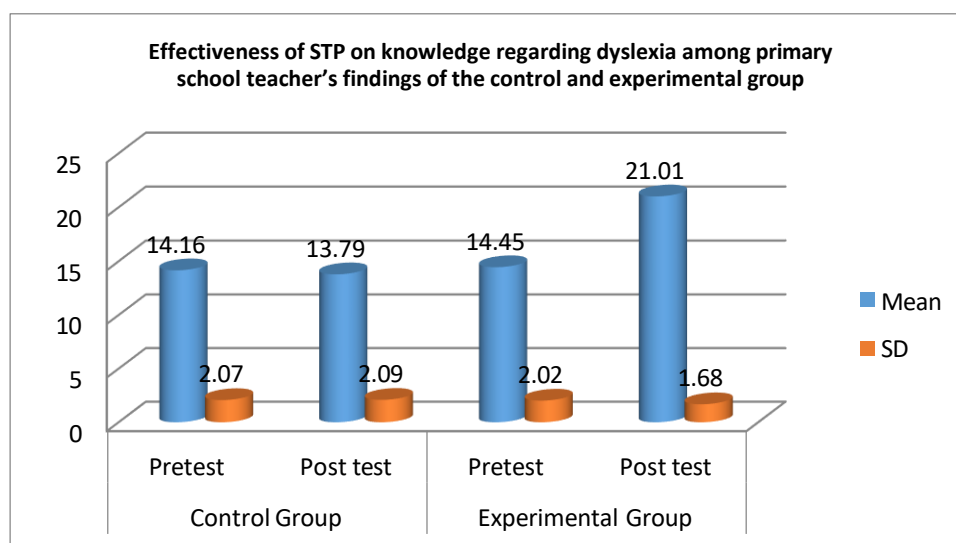
POST-TEST		MEAN	SD	Z VALUE	P VALUE
Meaning	Control	2.31	0.65	-3.088	.002
	Experimental	2.59	0.51		
Type	Control	2.34	0.88	-4.343	.000
	Experimental	2.9	0.88		
Risk factor	Control	0.43	0.5	-4.742	.000
	Experimental	0.76	0.43		
Mis- conception	Control	0.59	0.49	-3.906	.000
	Experimental	0.84	0.37		
Signs & Symptoms	Control	4.75	1.74	-10.799	.000
	Experimental	8.05	1.07		
Management	Control	4.03	1.84	-7.229	.000
	Experimental	5.87	1.32		
Total score	Control	13.79	2.09	-11.992	.000
	Experimental	21.01	1.68		

Findings related to the effectiveness of structured teaching programme on knowledge regarding dyslexia among primary school teachers are as follows: Effectiveness of STP on knowledge regarding dyslexia among primary school teachers shows that control group, the pre-test and post-test scores were compared with each other using the Wilcoxon sign rank test and the p-value is not less than 0.05 ($p < 0.05$) which means that there is no difference in knowledge statistically.

Effectiveness of STP on knowledge regarding dyslexia among primary school teacher's findings of the experimental group, there was a significant increase in the post-test scores of the mean. Compared the pre-test and post-test scores and calculated p-value by Wilcoxon rank test. P value ($p < 0.05$) is less than 0.05 hence we can conclude that there is an increase in knowledge after a structured teaching programme.

Table 2 Effectiveness of STP on knowledge regarding dyslexia among primary school teachers' findings of the control and experimental group

knowledge regarding dyslexia among primary school teachers	Control Group		Experimental Group	
	Pretest	Post test	Pretest	Post test
Mean	14.16	13.79	14.45	21.01
SD	2.07	2.09	2.02	1.68
Z-value	-1.55		-8.53	
P-value	0.121		0	

**Figure 2 Effectiveness of STP on knowledge regarding dyslexia among primary school teacher's findings of the control and experimental group**

Findings related to finding the association between pre-interventional knowledge score and their selected demographic variables show that, there is no significant association between the pre-interventional knowledge score and their selected demographic variables.

Discussion

Study findings indicated that the gender-wise distribution of primary teachers majority 58% and 55% were females respectively, with the Age group 36-45 years 44%, Experience wise distribution of primary teachers 42% had teaching experience of 10-20 years, Education qualification majority of the teachers completed D.Ed. in control 77% and experimental group 89%, Working sector 80% of the participants in the experimental group worked in the public sector, Strength of class-wise distribution of primary teachers were 30 children whereas 80% of the experimental participants, Language medium wise distribution of primary teachers as among the controls, 75% of the participants taught in English medium schools whereas 80% of the experimental participants taught in English medium, Special training attended on Dyslexia wise distribution of primary teachers as No one of the participants had attended any special training on dyslexia.

A similar study conducted by Anil Shetty, et al. (2014) conducted a study to evaluate the awareness and knowledge of schoolteachers in India. The self-report questionnaire was circulated to the teachers of 314 teachers from 32 schools after that researcher categorized responses into 4 groups according to answered appropriate signs and symptoms of dyslexia. Results showed that there was a direct relation with the training attended by teachers before their knowledge. Only 18 teachers identified signs and symptoms more than 11. The study concluded that 66.2% of teachers had poor knowledge of dyslexia.¹¹

The researcher compared the data of both the groups of control and experimental groups. The researcher conducted a pre-test followed by a structured teaching programme and after that on the 7th day conducted a post-test Investigator analyzed data by descriptive and inferential statistics. Results show that there is the effectiveness of a structured teaching programme and the experimental group was shown pre-test scores were 13.79 (58%) to 21.01 (84%).

A Study conducted by Joy Priscilla (2013) on a study to evaluate the effect of structured teaching programme on dyslexia and its identification among school teachers in selected primary schools of Bengaluru, three settings of the school was selected by the researcher and participants who teach 6-12 years of children, non-probability purposive sampling used by the investigator data analyzed by use of descriptive and inferential statistics, total 40 subjects involved in study, the researcher conducted the pre-test score of subjects and post-test knowledge assessed after structured teaching programme and knowledge increased from 19.38 (41.22%) to 39.53 (84.10%). The result concluded that there is effectiveness is assessed by the researcher and the need to update teacher's knowledge.¹²

Conclusion

According to the Dyslexia Association of India, Children with academic snags and clumsy actions, particularly accident-prone, are more likely to suffer from Dyslexia compared to normal children. Students find it tough to manage with flow of academic curriculum and secure poor marks due to difficulties in understanding basic concepts. As per studies, it is a difficult phase for kids from kindergarten to primary school and such level of difficulty, which is not identified can result in prolonged consequences like dropout & behavioral disorders.

Findings of knowledge before structured teaching programme regarding dyslexia among primary school teachers show that there is no difference (more than 0.05) in the pre-test scores between the participants in the control group and experimental group using as Mann-Whitney test done as data comes under the non-parametric curve. The value of the Mann-Whitney test is calculated from table value p.

The use of the Mann-Whitney test assessed the knowledge after structured teaching programme value p-value calculated from table values. There was a significant difference in the post-test knowledge score of the experimental group, which was compared with the control group's post-test knowledge mean score.

The researcher used Wilcoxon-rank test to assess the effectiveness of STP on knowledge regarding dyslexia in primary school teachers, domain-wise analysis done by the researcher and the total knowledge mean score of pre-test (24.79) with post-test (24.8) of control and experimental group of pre-test (14.45) with post-test (21.01) was compared, and mean score of knowledge depicts that, there is significant ($p < 0.05$) difference seen by use of structured teaching to enhance the knowledge of primary school teachers.

Conflict of Interest

The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

Funding Source

There is no funding source for this study".

Acknowledgment

I most sincerely convey my deep sense of gratitude to my guide/Organisation for her/their remarkable guidance and academic support during this study.

References

1. Ken Harley; Dyslexia International: Better Training, Better Teaching available at <https://www.slideshare.net/DyslexiaInternational>.
2. Ms.Sejal P.Sankhe^{1*}, Dr. Sudershna Lal². (2023) a study to assess the effectiveness of structured teaching program on knowledge regarding telemedicine among students from selected nursing colleges of navi mumbai, Eur. Chem. Bull. 2023, 12(Special Issue 10), 2331 – 2336.vol-12.
<https://doi.org/10.48047/ecb/2023.12.si10.0281>
3. Singh S, Sawani V, Deokate M, Panchal S, Subramanyam AA, Shah HR. Specific learning disability: a 5 year study from India. Int J Contemp Pediatr 2017;4:863-8.
4. Habib, M., & Giraud, K. (2013). Dyslexia. Handbook of clinical neurology, 111, 229–235. <https://doi.org/10.1016/B978-0-444-52891-9.00023-3>
5. Rose, J. (2009). Identifying and teaching children and young people with dyslexia and literacy difficulties: an independent report. Available from <http://dera.ioe.ac.uk/14790/1/00659-2009DOM-EN>.
6. Karande, S., Doshi, B., Thadhani, A., & Sholapurwala, R. (2013). Profile of children with poor school performance in Mumbai. Indian pediatrics, 50(4), 427. <https://doi.org/10.1007/s13312-013-0118-9>
7. Gajre, M., Meshram, H., Soares, N., & Anagha, M. (2016). Prevalence of Depressive Disorders in Children with Specific Learning Disabilities. Journal of Behavioral Health, 5(3), 105. <https://doi.org/10.5455/JBH.20160324111100>
8. Kaur, A., & Padmanabhan, J. (2017). Children with Specific Learning Disorder: Identification and Interventions. Educational Quest: An Int. J. of Education and Applied Social Science, 8(1), 1–7. <https://doi.org/10.5958/2230-7311.2017.00001.0>
9. Jayalalitha P, 'Awareness and attitude of primary school teachers towards learning difficulties in mathematics at primary level' xii, 195p, available at <http://hdl.handle.net/10603/65311>
10. Dr. Harsh Vardhan; Evaluatemen Tools for Dyslexia – 'A Learning Disorder' in Indian Languages; Press Information Bureau Government of India, Ministry of Science &Technology. available at <http://pib.nic.in/newsite/PrintRelease.aspx?relid=128722>
11. Anil Shetty, B Sanjeev Rai. Awareness and Knowledge of Dyslexia among Elementary School Teachers in India. JMSCR Volume:2, Issue 5 ,p. no. 1135-114- May 2014
12. Joy Priscilla; "A study to evaluate the effectiveness of structured teaching program on dyslexia and its identification among school teachers in selected primary schools of Bengaluru"; Published in Child Health (Paediatric) Nursing; doi: 10.1371/journal.pone.0165508