

Development Of Teaching Strategies For Students With Dyslexia

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Abstract:

Our universe is so beautiful with different cultures, but only a few are experiencing such beauty because of their innate inability to see things around them. An attempt is being made to develop some teaching strategies and study its effect on the academic achievement of students with dyslexia. The case study and experimental research method were adopted and the data were collected by means of an academic achievement test based on language and elementary mathematics and interview schedule. The study reveals that there is a significant effect of the teaching strategies on the academic achievement of students with dyslexia and most of the parents are not ready to accept the truth of their ward's learning disability. It is observed that the mental, physical, economic, social state of the mother, disease, malnutrition, addiction, and complications during delivery of the baby also effect directly and indirectly on the academic achievement of students with dyslexia.

Keyword: Student with dyslexia

Introduction: One of the fundamental human rights is education and 'Education for All' is an international commitment to ensure that every child receives a basic education of good quality. The Government of India has taken several initiatives to accelerate the process of educational mainstreaming of the persons with differential abilities, but it is still in its infancy in the State of Maharashtra. World Health Organization (1978) proposes the assumption of a three-tier classification system including impairment, functional limitations, and disability. Impairment leads to functional limitations and functional limitations lead to disability. Disability is the consequence of an impairment that may be physical, cognitive, mental, sensory, emotional, developmental, or some combination of these. The present research study is associated with one of the most crucial issues related to the education of learning disabled students particularly students with dyslexia in the Amravati division of Maharashtra (India).

Learning Disability:

Learning disability is the hidden invisible impairment, which cannot be identified until a child enters formal schooling. This is because school focuses on the various things that may be difficult for the child particularly in reading, writing, mathematics, listening, speaking and reasoning. The term learning disability represents the heterogeneous group of learners having the basic difficulty in listening, speaking, reading, writing, cognitive, symbolic language decoding, arithmetic and dealing with the situations. Learning disabilities among children varies from person to person. Two learning disabled children never have the same kind of learning issue as other children have. Some children face problems while writing another may have difficulty in reading or speaking. Still another child may be suffering in each one of them. Learning disability is caused by a person's brain working capacity and way of functioning and processing the information. Therefore, they may be abused by others as duffers or lazy. There are different definitions of learning disabilities. According to Kenyon (2003), "Learning disability is a neurobiological disorder that affects the brain's ability to receive, process, store, express, and respond to information."

It is observed that, in school, a large number of children have normal or above normal Intelligence Quotient (IQ), but they cannot get good marks in academic subjects. This discrepancy between the children's good intelligence and their poor academic performance is the nucleus of the matter in learning disability.

Types of Learning Disability: There are mainly three types of learning disabilities. a) Dyslexia; b) Dysgraphia; and c) Dyscalculia.

a) Dyslexia: Dyslexia is a disorder in a child who despite conventional classroom experience fail to attain the language skills of reading, writing and spelling commensurate with their intelligence. Dyslexia is also known as a reading disorder. It is a learning disability characterized by reading trouble and despite normal intelligence. Problems may include difficulties in spelling words, reading quickly, writing words, "sounding out" words in the head, pronouncing words when reading aloud and understanding what one reads.

b) Dysgraphia: Dysgraphia is a specific learning disability that affects written expression. Dysgraphia is a neurological disorder that generally appears when children are first learning to write. Experts are not sure what causes it, but early treatment can help prevent or reduce problems.

c) Dyscalculia: Learning disabilities related to Mathematics are called dyscalculia. Dyscalculia is a term referring to a wide range of life-long learning disabilities involving mathematics. Dyscalculia includes all types of Mathematics problems ranging from an inability to understand the meaning of numbers, to an inability to apply mathematical principles to solve problems. Estimates vary, but most experts believe 3 to 6 percent of the population has symptoms of dyscalculia.

Students with Dyslexia: There are many reasons why people find it difficult to learn to read, write, or spell. For many such people, those difficulties can be explained by the normal range of opportunity and experience. For others, however, those difficulties do not seem so easily explainable. Such learners may be what is termed 'dyslexia'. In the present research, students with dyslexia mean students admitted in the primary schools and students who are facing difficulties in reading.

Teaching Strategy: The term strategy refers to a pattern of acts that serve to attain certain outcomes. The word strategy is related to the army. According to Collin's English Dictionary, the strategy is the art of science of directing and controlling the movement and activities of the army. In the present study, the teaching strategy is that skillful planning of a working system by which its objective can be achieved conveniently. There are two types of teaching strategy one is an autocratic strategy and the second is permissive or democratic strategy. In the present study, role-playing and project permissive teaching strategies were used.

Review of Related Literature and Researches: Review of related literature continuously takes the lead of the up-to-date facts, which has always helped to accumulate with the earlier outcome of the researcher's efforts. The relevant related published research papers and related articles from various sources, which the researcher has come across, are arranged below in chronological order:

Gerta Tova Teitelbaum (1997) studied 'Foreign Language Acquisition for Students with Specific Learning Disabilities and Dyslexia' with the objective: to demonstrate a multisensory approach to the teaching of English as a foreign language to dyslexic students. The researcher suggested that a number of case histories are described in some detail to illustrate the problems faced by learning disabled pupils and their struggle to overcome them successfully through the use of multisensory teaching techniques.

Sumati Rani (2013) studied 'Development of Instructional Material for Learning Disabled Students of Secondary School' with the objectives: to identify the learning disability among the Home Science students and to study the achievement of learning disabled in Home Science. Findings showed that: The students having learning disabilities were found unable to describe various vitamins, their functions, and sources of vitamins, deficiency disease.

Rachel Zoubinetzky, Frédérique Bielle, and Sylviane Valdois(2014) have studied 'New Insights on Developmental Dyslexia Subtypes: Heterogeneity of Mixed Reading Profiles' with the objective: to check, reading performance are relevant to identify cognitively homogeneous subgroups of dyslexic children. They found that a mixed reading profile can be associated with a single VA span disorder.

Prasanta Kumar Acharya (2015) accomplished research on 'A Study on The Awareness of Secondary School Teachers Towards Language Learning Difficulties of Students' with the objectives: to find out the status of dyslexic students in Papumpare District of Arunachal Pradesh and to investigate the awareness of teachers towards dyslexia at secondary schools of Papumpare District of Arunachal Pradesh in relation to location and gender. He found that both the male and female teachers are aware of dyslexia at the secondary level.

Need for the Study:

From the related reviews, most of the related literature discovered that studies paying attention to types of dyslexia, learning disabilities, autism, purely phonetic, teacher's difficulties, effects of dyslexia, multilingual concepts, etc. In this paper, the researcher made an attempt to develop some teaching strategies and study its effect on the academic achievement of students with dyslexia.

Objectives of the Study:

The study was conducted with the following specific objectives:

- i. To identify the students with dyslexia and review their academic performances.
- ii. To study case studies of the students with dyslexia.
- iii. To study the effectiveness of the teaching strategies on the academic achievement of students with dyslexia.
- iv. To know the parental views towards the academic achievement of the children with dyslexia.

Hypothesis of the Study:

Keeping in view the objectives of the study, the following null hypothesis was formulated:

H₀: There is no significant effect of the teaching strategies on the academic achievement of students with dyslexia.

The Methodology of the Study:

This study was delimited to the students with dyslexia up to the age of fifteen years in the Amravati division of Maharashtra state. The case study and experimental research method were used for the present study. Amravati division is one of the major administrative divisions of Maharashtra included five districts Akola, Amravati, Buldana, Yavatmal, and Washim. The total number of Government-aided primary schools in the Amravati division is 6,530 and an approximate number of students is 13, 86,000. In this study, only 40 students with dyslexia and their parents were selected. The techniques like participants' observation, conversational analysis, description, and interpretative techniques were used. Further, a separate achievement test was constructed to measure the academic performance of the students with dyslexia.

Analysis and Interpretation of Data:

In the present research study, the researcher studied several cases of students with dyslexia. Some of the case studies of students with dyslexia have been presented as follow:

Case 1: Ku. Nayana Naresh Gade, Age: 12; Sex: Female; Language is known: Marathi, Hindi; Type of disability: Primary Dyslexia. Father: Mr. Naresh Gade, (36); Education of the father: 11th; Occupation of father: furniture making; Monthly income of the father: 5000/-; Mother: Mrs. Lalita Gade (29); Education of the mother: 10th; Occupation of mother: housewife. Student's disability: Nayana has difficulty in the identification of letters in English as well as in Marathi. Educational background: Nayana is studying in 7th standard. She is very poor in Marathi and Mathematics. She is interested in studies as well as other activities too.

Observations: At the time of pregnancy, her mother Mrs. Lalita was just 17 years old and also she took treatment of malaria during pregnancy period. These may be the cause of the disability of Nayana.

Case 2: Mahesh Abhiman Tayade; Age: 11; Sex: Male; Language known: Marathi, Hindi; Type of disability: Primary Dyslexia. Father: Mr. Abhiman S. Tayade (41); Education of the

father: B. Com.; Occupation of father: Welding; Monthly income of the father: 6000/-. Mother: Mrs. Vanita A. Tayade (27); Education of the mother: 9th; Occupation of mother: housewife; Student's disability: Mahesh has difficulty in pronouncing and identification of letters in English as well as in Marathi. He could not pronounce words correctly and unable to recognize letters and numbers. Educational background: Mahesh is studying in 7th standard. He is not much interested in studies. He likes playing. He has frequent complaints about his health like a cough due to asthma.

Observations: Due to pre-mature birth in the 7 months and the parent's marriage is in blood relation may cause Mahesh's learning disability. The low socio-economic and unhygienic living conditions may also be the cause of his disability.

Identification of Students and Treatment: In this prior phase, the researcher identified the dyslexic child with the testing on various grounds. Interaction with the child, interview of their teachers, headmasters, peer groups, and parents was also part of this phase. In the second stage, self-developed but a validated test from various experts was arranged. This test is based on the student's basic knowledge, identification of letters, and words. In the third stage play-way method, associated activities were conducted by the researcher. These activities endorse and boost their confidence and develop their motor-based mechanism abilities. These simple activities include; catching and throwing the ball, skipping, tying shoelaces, button-up, formatting alphabets with grains and stones, identification of colors, etc. In the fourth stage, the researcher conducted a posttest and analyzed the scores of the students with dyslexia.

Analysis and Interpretation of Academic Achievement: The analysis and interpretation of academic achievement of the students with dyslexia in the Pre-test and Post-test have been reasonably presented in the following table.

Mean difference between Academic Achievement of Boys and Girls with Dyslexia

Variable	Number N	Mean M	Standard Deviation σ	Standard Error SE_{DM}	t-value	Significant
						0.01 level
Pre Test	40	15.50	4.01	0.5020	9.56	Significant
Post Test	40	20.30	3.50			

Ref: The facts and figures in the above table are based on the field data collected during 2019-20. If $df = 39$ then table t -value at 0.01 level of significance is 2.70.

From the above table, it is revealed that obtained t -value 9.56 is more than the table value at 0.01 level of significance. Therefore, there exists a statistically significant mean difference between the academic achievement of students with dyslexia in Pre-test and Post-test. This indicates that there is a significant effect of teaching strategies on the academic achievement of students with dyslexia. Hence the null hypothesis is rejected.

Findings of the Study:

On the basis of the analysis of data and interaction with the parents of students, major findings are discussed under:

- There is a significant effect of teaching strategies on the academic achievement of students with dyslexia.
- The academic performance of boys and girls with dyslexia in the language is not up to the mark. Almost 70% of boys and 60.82% secured marks below 40%.
- Almost 80% of parents viewed that, schools provide academic guidance in regard to increasing the academic performances of disabled students. On the contrary, it is observed that, most of the heads of normal schools which practice inclusion have very limited awareness about various disability conditions and the specific educational need of disabled students.
- On the basis of case studies, premature delivery, parent's marriage in blood relation, the low socio-economic and unhygienic living conditions are the causes of disability.
- Most of the parents are not ready to accept the truth of their ward's learning disability.
- It is observed that the condition and circumstances while birth is an essential factor for dyslexia. Mental, physical, economic, social state of the mother, disease, malnutrition, addiction and complications during delivery of the baby also affecting components for dyslexia.
- The child with dyslexia, lose self-confidence due to neglected behavior of the educational and social bodies. Lack of time, workload, and other affecting components restrict teachers and school bodies to give special attention to these children.

Conclusion: On the basis of the above findings, the researcher found various loopholes in the present educational system. Not only for the learning-disabled students but normal students

also. It is the bigger gap between the actual scenario and the authentic documentation. The parents and teachers should create an openhealthy atmosphere at home and school for these children so that children can have open interaction with them. This is the need of the hour.

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