Dyslexia as a Learning Disability: Teachers' Perceptions and Practices at School Level

Tahira Kalsoom[*], Abdul Haseeb Mujahid[**] and Asia Zulfqar[***]

_____

Abstract

The study explored teachers' perceptions and practices at school level with special reference to dyslexia. Being deprived of proper learning environment learning difficulties are multiplied for dyslexic students. Poor reading skills are the reason of low vocabulary. The study was quantitative in nature. It was conducted in the secondary schools of Lahore city. The sample was selected conveniently. T-test and ANOVA were applied to analyze the data. It was concluded from the study that majority of the teachers were aware of the term dyslexia. Students suffering from Dyslexia took more time than their peers to understand as well as to complete the task. Teachers faced difficulties while teaching dyslexic students along with other students as they cannot complete their task in one setting. They help the students to boost their confidence as well as self-esteem.

Keywords: Dyslexia, learning disability, students, perceptions, secondary level

[*] Assistant Professor, Lahore College for Women University.
Email:tahira.kalsoom@lcwu.edu.pk
[**]Director, Air Foundation School Jauharabad.
Email: haseab@gmail.com
[***] Assistant Professor, Department of Education, Bahauddin Zakariya University, Multan
Email: asia.zulfqar@bzu.ed.pk

Introduction

Neurobiological learning disorder is called Dyslexia (Rose, 2009). The students who are suffering from this disease usually face certain difficulties, e.g. identifying words, remembering spellings and in reading. Being deprived of proper learning environment learning difficulties are multiplied for dyslexic students. Low vocabulary and difficulty in recalling previous knowledge occurs due to poor reading skills. While reading dyslexic students are unable to identify words (Rose, 2009).

Dyslexics' problem related to word recognition is basically linked with the part of brain related to processing of orthographic and phonological aspects of language (Davis et al., 2011). Now the research results are contradictory with the previous theories which proved that dyslexia is basically linked with visual, hearing and intellectual deficit (Snowling & Hulme, 2012). Dyslexia is language processing difficulty and it is the result of a lack of proper intellectual functioning. It is also different from reading difficulties related to cognition (Das, 2009).

An effective classroom is designed for both normal and disabled students simultaneously (Sin et al., 2010). Peterson (2012) said, "To provide equal opportunity to all children to get education together is the basic principle of inclusive education". Rouse and Florain (2009) said that, "many teachers even with greater experience were not trained in the area of special needs, either through continuing professional development or as student teachers. Dyslexic students are not being taught by trained and skilled teachers (Hayes, 2000).

Association of International Dyslexia (2009) demands that it is crucial to identify and evaluate the dyslexic students for their success in schools. Effective program should be developed by trained personals after careful situation analysis (Powers, et al., 2013). According to Kooij (2013), in order to work on their own pace, dyslexics require one-on-one assistance.

Ahmed (2018) says that it is important to teach a dyslexic individual with effective methods. Intercession includes identification of words, spelling of words, and fluent reading skills (Lucy, 2009). Reason (2001) said that intervention strategies used for dyslexic students to teach them could also beneficial for other students, as they can be taught through various learning strategies. Only language-based activities are not the part of the intervention but it also accommodates students with dyslexia (Mastropieri & Scruggs, 2001). Modification allowed students to attempt verbal exams as a substitute of transcribed exams. Meditation is also used to overcome difficulties of dyslexic students such as confidence and self-esteem (Berkhan, 2017).

Reardon (2016) says that teachers and parents' awareness to deal with dyslexic students is necessary. Numerous organizations and schools have a quick fix solution to dyslexia. (IDA, 2009) It is reported that dyslexia can't be cured through any quick fix solutions rather it can be cured in a specific period of time successfully (Sawyer, 2009). It is said that an accessible 'treatment program' could not be replaced by one-on-one activities with an expert. It also informed the parents and teachers should be given awareness and training to deal with dyslexic students (Aronin & Floyd, 2013). (Tilly, 2008) These trainings may prove effective for academic success and it may boost confidence or self-esteem and reduce anxiety of such students (Berninger, 2000). Anxiety in dyslexic students is caused due to isolation from their peers and due to fear of failure, they suffer from low self-esteem (Long, et. all, 2007). Suggestions for While teaching dyslexic students don't ask them to read aloud because dyslexic students feel embarrassment while reading aloud in the classroom due to wrong pronunciation of words. Dyslexic children have communication problems. They cannot properly understand what others think and feel. All these things make learning extremely difficult for such children.

According to Johnson (2004), students with dyslexia did not like those teachers who show rude behaviors towards them and the teachers who get angry when they ask things more than one time or do something wrong. Dyslexic students want peace and safety, they want friendly environment with their teachers in classroom. They want to be supported by their teachers with their differences.

According to different researchers speedily mediation is best. The Association of International Dyslexia (2008) regarding this view said that it is crucial to identify and evaluate the dyslexic students for their success in schools and in life. After evaluation, effective program should be developed by trained personals (Everatt et al., 2007).According to IDA (2008), in order to work on their own pace dyslexics require one-on-one assistance. It is important to teach a dyslexic individual with effective methods. Mediation includes identification of words, spelling of words, and fluent reading skills. (International Dyslexia Association, 2008)

Reason (2001) said that intervention strategies used for dyslexic students to teach them could also benefit the other students, as they can be taught through various learning strategies. Reason's argument was valid till dyslexic students have access to one-on-one intervention because many dyslexics read in mainstream schools where they are taught by single strategy (Reason, 2001).

Only language-based activities are not the part of the special learning strategies, it also includes facilitation and modification for students with dyslexia.

Facilitation includes the rule of relaxing and giving extra time to students. For example, while spelling, learners should not be punished for spelling errors. Dyslexic students should be provided with more time and a transcriber during test (Susan, et al., 2007).

Statement of the problem

Learning difficulties like dyslexia create a hindrance in students' success and achievement and need a rigorous research in the field. Present study explores teachers' perceptions regarding students learning difficulties with special reference to dyslexia. It also tends to explore classroom practices in this regard. The study addresses Dyslexia, because students with such problem being deprived of proper learning environment learning difficulties are multiplied for dyslexic students

Research Objectives

1. To identify the Dyslexic students' learning difficulties at school level
2. To identify the Teachers' perceptions and practices regarding dyslexic students

Research Questions

1. What type of difficulties dyslexic students face while learning at school level?
2. What are their teachers' perceptions and practices while teaching dyslexic students?

Research Methodology

The study was quantitative in nature and survey method was used to collect data from the mainstream schools of Lahore city. Convenient sampling technique was used. Data was collected personally by the researchers after taking consent from the selected schools' administration. Descriptive as well as inferential analysis of data was generated. The researcher used questionnaires as the main research instrument. Self-constructed questionnaire was used. To ensure the validity of the instrument expert opinion was taken from a panel of 6 researchers and teachers.

The pilot study was conducted to check the reliability of the instrument and the Cronbach's alpha value was .859 for 45 items, which was well above the acceptable range of 0.70.
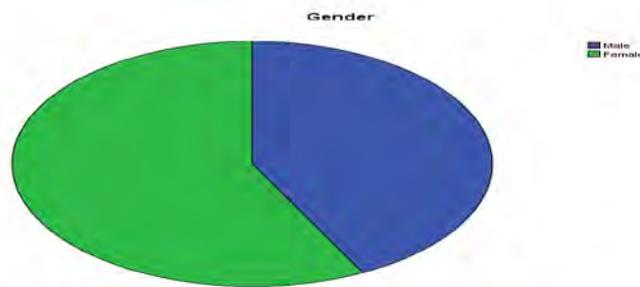
Table 1

Reliability Statistics

N of Items	Cronbach's Alpha
20	.859

Results

Questionnaire was used to collect the data for this study. Descriptive and inferential analysis was done to find the results. Following Graphs1show the demographic details of the respondents.

Descriptive Analysis

Graph1. *Respondents Distribution by Gender*

The results show that from 328 respondents 189 were female teachers i.e. 57.6% and 139 were male teachers i.e. 42.2 %.

The graph 2 shows the teaching experience of respondents to help the researcher to determine if the understanding of teachers regarding the term dyslexia and the strategies used by them vary according to the experience.

Distribution of Respondents by Experience
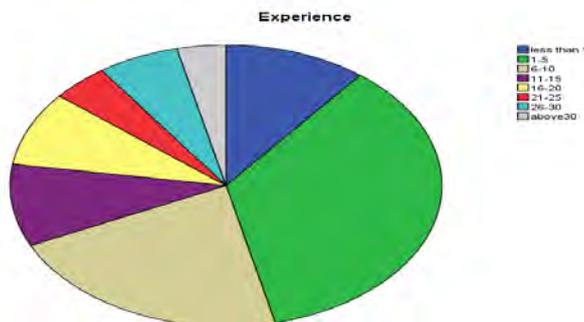
Among 328 respondents, 35 respondents have less than 1 year of teaching experience i.e. 10.7%, 117 respondents have between 1 to 5 years of experience of teaching i.e. 35.7%, 71 respondents have about 6 to 10 years of teaching experience i.e. 21.6%, 31 respondents have between 11 to 15 years of teaching experience i.e. 9.5%, 28 respondents have between 16 to 20 years of teaching experience i.e. 8.5%, 14 respondents have between 21 to 25 years of teaching experience i.e. 4.3%, 20 respondents have between 26 to 30 years of teaching experience i.e. 3.7% and 12 respondents have above 30 years of teaching experience and the strategies used by them to deal dyslexic students may vary according to their experiences

Graph 3
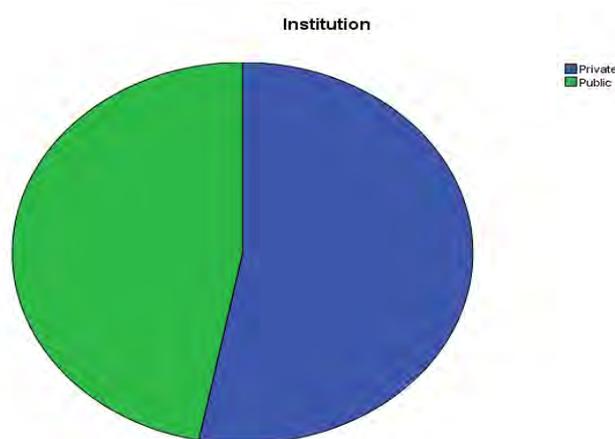
The above graph shows that out of 328 respondents, 174 respondents' school type was private and 154 respondents' school type was public.

Table 2
Mean distribution of participants' perceptions about Dyslexia

Sr.	St.	SD	D	N	A	SA	Mean	Std.D
1	Language-based learning disability is called dyslexia.	20.6	29.4	32.4	2.9	14.7	2.62	1.1280
2	Students with dyslexia have difficulties with spelling	23.5	17.6	41.2	8.8	8.8	2.62	1.206
3	Dyslexic Students' can't write properly.	11.8	38.2	20.6	20.6	8.8	2.76	1.182
4	Dyslexic students are unable to pronounce words properly.	17.6	8.8	35.3	26.5	11.8	3.06	1.254
5	Dyslexia is incurable disability.	23.5	26.5	26.5	20.6	2.9	2.53	1.161
6	The causes of dyslexia are not clear..	23.5	29.4	35.3	5.9	5.9	2.41	1.104

7	Dyslexics can't express themselves orally	20.6	17.6	23.5	17.6	20.6	3.00	1.435
8	People who are very intelligent can be dyslexic.	11.8	29.4	32.4	11.8	14.7	2.88	1.225
9	Dyslexia is curable disease.	11.8	29.4	23.5	20.6	14.7	2.97	1.267
10	I understand the learning difficulties of students with dyslexia.	2.9	20.6	35.3	23.5	17.6	3.32	1.093
11	Dyslexics cannot memories words	29.4	20.6	11.8	17.6	20.6	2.79	1.553
12	Dyslexics can be easily identified in class.	8.8	17.6	26.5	26.5	20.6	3.32	1.249
13	Dyslexics need special attention in class	20.6	23.5	32.4	14.7	8.8	2.68	1.224
14	Students with dyslexia are good in hands on work.	29.4	20.6	26.5	17.6	5.9	2.50	1.261
15	Dyslexia is genetic disease.	2.9	32.4	14.7	32.4	17.6	3.09	1.194
16	Dyslexics usually read backwards.	5.9	17.2	8.8	26.5	41.6	3.29	1.288
17	Students with dyslexia cannot identify words and symbols.	2.9	14.4	11.8	38.2	32.7	3.50	1.169
18	Through formal testing of reading and writing skills dyslexic students can be identified.	5.9	14.7	26.5	29.4	23.5	3.32	1.187
19	Dyslexic students need more time in tests or exams.	5.9	23.5	26.5	20.6	23.5	3.21	1.249
20	Many dyslexics show talent in the arts.	2.9	14.4	20.6	29.4	32.7	3.31	1.149

Table 2 shows the frequency of respondents' perception regarding each statement on pretest. A quick look of the table tells us that participants have lack of awareness regarding students' learning difficulties because most of the participants are disagreeing or strongly disagreeing with the statements related to dyslexia. With statement 1, 20% are strongly disagreeing and 29% are disagreeing whereas 32 % are neutral or don't know the term and same is the case with other statements that most of responses come under strongly disagree, disagree or neutral. So it can be deduced that teachers are not well aware about the term dyslexia. 40 % are disagreeing and 41 % are neutral with statement no. 2, 38% are strongly disagreeing with statement No 3 whereas with statement No. 4, 35% were neutral and 3 % were strongly agreeing and the rest of the respondents were disagreeing or strongly disagreeing. This shows that majority of the respondents agreed that dyslexics face difficulties in recalling spellings and 14 respondents disagreed that dyslexics face difficulties in recalling spellings.

23.5% strongly agreed with the statement and 50.9% agreed with the statement while 12.5% were unsure about the statement. Respondents i.e. 6.1% strongly disagreed with the statement and 23 respondents i.e. 7% disagreed with the statement.

Table 3

t.test (Gender) to find out the difference in mean scores between groups on the scale

Gender	N	mean	Std.	df	t	Sig.
Male	139	2.3905	.40140	326	.2747	.506
Female	189	2.2623	.42912	307.838		

In the table given above an independent sample t-test was conducted to determine the significance difference between the opinions of male and female teachers regarding dyslexic students. The significance level of this t-test (p=.05) indicates the difference between the means i-e (0.13) would happen by chance only 0.506 times out of 100. Because .506 is greater than the standard alpha level (p=.05). So there is no significance difference in the opinion of male (M=2.4, SD=0.40) and female (M=2.3, SD=0.43) conditions; t(326) =0.25, p=0.506.

Table 4

t.test (school type) to find out the difference in mean score between groups on the scale

Institution	N	Mean	Std.D.	df	t	sig.
Private	174	2.2882	.42538	326	-1.301	.933
Public	154	2.3488	.41669	322.649		

In the table 4, an Independent-sample t-test is used to compare significance difference in the opinions of teachers between the two independent groups (i.e., private and public).

The significance level of this t-test (p=.05) indicates that the difference between the means i-e (-0.061) would happen by chance only .933 times out of 100. Because .933 is greater than the standard alpha level (p=.05). So there is no significance difference in the scores of private institution (M=2.3, SD=0.43) and public institution (M=2.4, SD=0.42) conditions; t (326) = -1.3, p=0.933.

ANOVA Test

A one-way analysis of variance was conducted to investigate the strategies used by teachers to deal with dyslexic students according to their experience.

Table 5

ANOVA (Experience) to find out the difference in mean scores between groups on the scale

	Sum of Squares	df	f	sig.
Between groups	1.615	7	1.305	.247
Within groups	56.555	320		
Total	58.170	327		

The analysis of variance in the above table shows that there is no significance difference because the value of significance i.e. 0.247 is greater than the standard alpha level i.e. (p= 0.01), F (7,320) =1.3, p=0,247.

Discussion and Conclusions

Teachers' perceptions and practices regarding dyslexic students at school level were studied and it was found that teachers are aware with the term "dyslexia" and they know the difficulties of such students. Berliner (2004) Said, "While teaching they try to take care of dyslexic students, specifically while teaching English they help dyslexic students in reading, writing, spelling and memorizing the words."

International Dyslexia Association (2008), reports that intervention is also used to overcome difficulties of dyslexic students such as confidence and self-esteem. (IDA, 2008).

The results of the study support the research conducted by Rebecca Elias (2014) in New Zealand which found that teachers are very positive towards dyslexic students and try to solve their problems. The investigation was done in secondary schools so the results are significantly aligned with this research.

Anxiety in dyslexic students is caused due to isolation from their peers and due to fear of failure; they also suffer from low self-esteem (Long, et.al, 2007).

Bausch, and Ault, (2012), said, "It happens sometimes that even after getting effective remediation, dyslexics continue to struggle to face their disability throughout their lives."

It cannot be denied that teachers play a vital role in recognition, evaluation and cooperative teaching methodologies of dyslexia. Awareness and training programs regarding dyslexia are important for teachers (Chista, et al, 2016).

Another research conducted on Kuwaiti teachers showed that teachers have awareness about dyslexia (Aladwani, et al 2012). Kuwait Dyslexia Association (KDA) has conducted a survey in 2004 and revealed a number of dyslexic students reading in primary schools i.e. 6.3%. Basu(2014), said, "83% percent teachers faced academic challenges and 30% faced behavioral challenges with dyslexic children". It is difficult area for almost all the teachers to teach reading, writing, speaking and other language skills to dyslexic students (Chong, et al 2007).

Recommendations

The major recommendations were:

1. In service training should be provided to teachers to address the needs of students with dyslexia
2. Findings of recent researches and recommendations should be inculcated in education system.
3. Inclusive Education should be the most important element of our education system.

References

Ahmed, A. (2018). Perceptions of using assistive technology for students with disabilities in the classroom. *International Journal of Special Education, 33,* 129–139.

Aladwani, Amel M.; Shaye, Shaye S. Al, (2012). Primary *School Teachers' Knowledge and Awareness of Dyslexia in Kuwaiti Students.* https://www.questia.com/ library/journal/1G1-283945585/primary-school-teachers-knowledge-and-awareness-of

Aronin, S., & Floyd, K. K. (2013). Using an iPad in inclusive preschool classrooms to introduce STEM concepts. *Teaching Exceptional Children, 45,* 34–39. doi: 10.1177/004005991304500404

Basu S. C. (2014). *A Study to Find the Challenges Faced by Teachers in the Class of Child with Dyslexia.* https://www.researchgate.net/publication/282337151_A_Studyto_Find_ the_Challenges_Faced_By_Teachers_in_the_Class_of_Child_with_Dyslexia

Bausch, M. E., Ault, M. J. (2012). Status of assistive technology instruction in university personnel preparation programs. *Assistive Technology Outcomes and Benefits, 8,* 1–14

Berliner, D. C. (2004). Describing the behavior and documenting the accomplishments of expert teachers. *Bulletin of Science, Technology & Society, 24,* 200-212.

Berninger, V. W. (2000). Dyslexia the invisible, treatable disorder: The story of Einstein's Ninja turtles. *Learning Disability Quarterly, 23*(3), 175-195. Retrieved from http://0-ldq.sagepub.com.oasis.unisa.ac.za/content/23/3/175.full.pdf+html

Chista, B., & Mpofu, J. (September, 2016). IOSR Journal of Research & Method in Education (IOSR-JRME) e-ISSN: 2320–7388,p-ISSN: 2320–737X *6,*   Issue   5 Ver. I, PP 64-75

Chong S. C. S., Forlin, C., & Au, M. L. (2007). The influence of an inclusive education course on attitude change of pre-service secondary teachers in Hong Kong. *Asia-Pacific Journal of Teacher Education, 35*(2), 161–179. Retrieved from http://0web.ebscohost.com.oasis.unisa.ac.za/ehost/pdfviewer/pdfviewer?vid=16& sid=193db9 b4-9075-4987-8b93-4f84144a7353%40sessionmgr10&hid=7

Das, J. P. (2009). *Reading difficulties and dyslexia: An interpretation for teachers.* Thousand Oaks, CA: Sage.

Davis, N., Barquero, L., Compton, D. L., Fuchs, L. S., Fuchs, D., Gore, J. C., & Anderson, A. W. (2011). Functional correlates of children's responsiveness to intervention. *Developmental Neuropsychology*, *36*(3), 288–301. https://doi.org/ 10.1080/87565641.2010.549875

Darcy Ann Umphred; Rolando T. Lazaro; Margaret Roller; Gordon Burton (2013). Neurological Rehabilitation. Elsevier Health Sciences p. 383.

Everatt, John; Weeks, Sally; Brooks, Peter (2007). "Profiles of Strengths and Weaknesses in Dyslexia and Other Learning Difficulties". Dyslexia. John Wiley & Sons (In Press) (1): 16–41 Retrieved 2016-12-13

Hayes, J. (2000). The effects of teacher awareness on the achievement of students with learning disabilities at secondary level. (Doctoral dissertation). Retrieved from http://0search.proquest.com.oasis.unisa.ac.za/pqdtft/docview/304672753/preview PDF/13DE6127F5161760E56/2?accountid=14648InternationalDyslexiaAssociation
. (2009). Dyslexia treatment programs. [PositionStatement]. Retrieved from http://www.interdys.org/ewebeditpro5/upload/IDA_Position_Statement_Dyslexia _Treatment_Programs_template(1).pdf

Kooij, J. J. Sandra (2013). *Adult ADHD diagnostic assessment and treatment (3rd ed.).* London: Springer. p. 83

Lucy C. Martin (2009). Strategies for teaching students with learning disabilities Strategies%20for%20Learning%20and%20Teaching%20_%20Special%20Educa tion%20Support%20Service.html (Retrieved on July 7, 2017)

Long, L., MacBlain, S., & MacBlain, M. (2007). Supporting students with dyslexia at the secondary level: An emotional model of literacy. *Journal of Adolescent and Adult Literacy, 51*(2), 124-134. Retrieved from http://0web.ebscohost.com.oasis. unisa.ac.za/ehost/pdfviewer/pdfviewer?sid=e77b42fd-33b34948-8013- 5fe491b93b73%40sessionmgr11&vid=4&hid=12

Mastropieri, M. A., & Scruggs, T. E. (2001). *Promoting inclusion in secondary classrooms.* Peterson, RL; Pennington, BF (26 May, 2012). "Developmental dyslexia." (PDF). Lancet. 379 (9830): 1997–2007.

Powers, N. R., Eicher, J. D., Butter, F., Kong, Y., Miller, L. L., Ring, S., Mann, M., & Gruen, J. R. (2013). Alleles of a polymorphic ETV6 binding site in DCDC2 confer risk of reading and language impairment. *American Journal of Human Genetics, 93*(1), 19–28. https://doi.org/10.1016/j.ajhg.2013.05.008

Reason, R. (2001). Educational practice and dyslexia. *Psychologist, 14*(6), 298-301. Retrieved from http://0search.proquest.com.oasis.unisa.ac.za/docview/ 211834694/fulltextPDF/13B745837D01111EC5E/17?accountid=14648

Rebecca Elias, (2014). Dyslexic Learners: An Investigation into the Attitudes and Knowledge of Secondary School Teachers in New Zealand http://www.dyslexiafoundation.org.nz/dyslexia_advocacy/pdfs/re_dissertation_20 14.pdf(Retrieved on August 8, 2017)

Reid., G. (2011). Dyslexia (*3rd Ed.)* London.

Reardon, S. F., & Portilla, X. A. (2016). Recent trends in income, racial, and ethnic school readiness gaps at kindergarten entry. AERA Open, 2(3), 1–18. https://doi.org/10.1177/2332858416657343

Rose, J. (2009). Identifying and teaching children and young people with dyslexia and literacy difficulties. Paper presented at From Inclusion to Belonging: The Language of Learning Conference, Cape Town, South Africa

Sawyer, D. J., & Jones, K. M. (2009). Just the facts: Testing and evaluation. The International Dyslexia Association. Retrieved from https://dyslexiaida.org/ testing-and-evaluation/

Snowling, M. J., & Hulme, C. (2012). Research review: The nature and classification of reading disorders-A commentary on proposals for DSM-5. *Journal of Child Psychiatry, 53,* 593–607. https://doi.org/10.1111/j.1469-7610.2011.02495.x

Sin K. F., Tsang, K. W., Poon, C. Y., & Lai, C. L. (2010). Upskilling all mainstream teachers: What is viable? In C. Forlin (Ed.), *Teacher education for inclusion:* Changing paradigms and innovative approaches (pp. xx). Abingdon: Routledge.

Ayers, S., Baum, A., McManus, C., Newman, S., Wallston, K., Weinman, J. & West, R. (2007). *Cambridge handbook of psychology, health and medicine.* Cambridge University Press.

Tilly, M. & Jane., D. (2008). Dyslexia-friendly practice in the secondary classroomVerga, Laura (September 2013). "How relevant is social interaction in second language learning". Frontiers in Human Neuroscience.