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Specific Learning Difficulties of Secondary School Students in Pakistan: A Survey based on Teachers' Perceptions

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ABSTRACT

The presented research is conducted in the context of prevailing specific learning difficulties (SLD) of secondary grade students. The objective of this descriptive quantitative research was to investigate the rate of specific learning difficulties and their contributing factors. For evaluating the extent of SLD in secondary grade students and perceived factors that promote SLD, a data-collection instrument made up of three sections was deigned. The participants of this study were male and female teachers of secondary classes (n=800) in Punjab, the most populous province of Pakistan. After obtaining results of descriptive analysis the findings of study were analyzed and discussed. The results allowed to conclude that extent of SLD in secondary grade students are moderate. Investigation results suggest that to support students with SLD, Pakistani schools should introduce Universal Learning Design.

Keywords: Learning Difficulties, Dyslexia, Dysgraphia, Dyscalculia, Language Processing Difficulties, Nonverbal Learning Difficulties.

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Introduction

In educational context new competences are the need of today's educational society from different perspectives. A new educational paradigm emphasis on the development of the student's potential, personalized responses needs and offers the involvement of new technologies in educational field. According to the Brun *et al.*, (2022) study, high external and intense attributions indicated the lowest level of helping behaviour and a powerless profile. Students show responsible behaviour and vice versa. If the curricular content were adapted to a more diverse reality, considering students with learning difficulties, then an inclusive educational system could be created successfully. Learning difficulties is a term covering articulating instructive difficulties of different kinds and is typically associated with a custom curriculum. The learning challenges are chosen in more exact terms as learning disabilities and are utilized reciprocally by schools, guardians, and experts. Learning disabilities, in general, are surrounded by children aged three to seven years old; or by adults who also highlight learning handicaps when they are occupied with learning of some impression or a capacity. To provide flexibility in the pace and time of learning, increasing motivation in learning and understanding information and communication technologies (ICT) enables the student to be seen as taking a leading role in their

learning. Every individual has different learning challenges. For instance, a little kindergarten student may face learning inabilities in the shading of items in a primary school student may not be insightful enough to achieve passing marks in subjects like math or science.

In these cases, when students encounter learning challenges, their teachers need to expand that mindfulness and energy inside themselves so that they can move the students to try sincerely to resolve their issues. Difficult work, commitment, consideration, enthusiasm, and commitment are a few of the critical perspectives that students and educators must have in order to overcome a wide range of learning disabilities among people of various ages (Gillard, 2016).

Asghar *et al.,* (2022) studied the relationship of socio-psycho factors causing the failure of female students at the secondary level and analysed where teachers' attitudes were positive and democratic students' success rate was high. From the present study, it is assumed that teachers' perceptions should be investigated about SLD students. The responsibility falls on the educational administration for the prime development of students' personal, social, and intellectual levels to obtain any kind of means (human or material) that are considered necessary. These bodies need to develop priority intervention plans for students with special educational needs in school. At the same time, new technologies provide adaptive functions for participation in society and facilitate communication, the environment, processes of elaboration, and school education.

Literature Review

Specific Learning Difficulties

The effects of the involvement of language, reading, writing, and/or calculation at a cognitive level are considered a "Specific Learning Difficulty" (SLD). Learning incapacities are a result of hereditary and neurological components or injury that changes mind tasks in a way that controls the method identified with learning (Soponaru *et al.*, 2016). These issues are not because of thought or vision issues, social-financial components, social or phonetic contrasts, need for inspiration, deficient or inacceptable instruction; however, these variables may increase learning incapacities (Wong *et al.*, 2015). Students with learning difficulties may have different issues like consideration, conduct or passion problems, physical weaknesses, or some clinical conditions. Learning difficulties are flexible and go farther than the regular awareness of the issue as categorically understood complexity (Wong *et al.*, 2015). A new term for learning difficulties showed up in the mid-60's of the most recent century as "learning handicap" by Fletcher and Neumunster (2012) that is personally associated with informative arrangements. Logical investigation of learning challenges traces back to the most recent years of the 19th century, when kinds of formative dyslexia were first depicted by Morgan (1896) or Hinschel Wood (1895), which developed the expression word visual deficiency (Swanson & Vaughn, 2015). Hussein (2009) expected various types of learning handicaps. A learning handicap gets confused, limiting their ability to develop and adhere to data. Hussein (2009) projected various types of learning handicaps.

Forms of Learning Difficulties

Dyslexia: It is a learning problem that discourages a student's fitness to comprehend a lot of composition (American Association on Intellectual & Developmental Disabilities, 2015).

Dysgraphia: Dysgraphia can be identified with the substantial activity of composing. Students with this learning difficulty often can't handle a pencil effectively, and their behaviour might be restless while attempting to compose (Dalsen *et al.*, 2016). Students have issues organizing their opinions fluently (Cook, Coyne, Therrien & Travers, 2016). Dysgraphia can also interfere with students' vibrant sentence development and linguistic agreement (Bobzien, 2014).

Dyscalculia*:* Students with learning disabilities in arithmetic may have difficulties performing basic math estimations, or they may have difficulties with concepts such as time, estimation, or judgement (American Association on Intellectual and Developmental Disabilities, 2015).

Language processing difficulties: These deficiencies are mainly hearable or visual, and they can make students inflexible when separating and remembering significant data that is important to progress admirably (Bobzien, 2014). By considering these inabilities, it is likely to find a useful way out with the goal that each student can do well (Hussein, 2009).

Nonverbal learning difficulties: Those who experience difficulty interpreting language and figuring out how to peruse that are not about verbal correspondence; consequently, it's called a non-verbal learning issue. However, specialists in NLD can clarify what's going on with children and how to help them learn better (Banker *et al.*, 2020).

Diagnosis of a Learning Difficulty

Testing and judgement of a serious inability requires some serious energy, and in light of the fact that an individual has a couple of signs doesn't mean the person has a learning incapacity (Shaw, 2010). Many children may not have visible inabilities from childhood to adolescence, which may lead to them becoming aware of a learning disability (Myers & Johnson, 2007). In such effects, adults have a responsibility to look for beneficial assessment (Linstead *et al.*, 2017). Woolley (2011) proposed that guardians should not be focused on deciding on an exact tacky tag for their kid and must give their youngster from the start one-on-one help. As a rule, for a precise analysis of learning difficulties, the following fields of assessment are crucial for all age groups of children, such as:

- Social history, hereditary history, and family history, particularly while siblings and sisters who may face similar learning challenges are participating (Thapa, 2008).
- Examining, writing, math, and spelling are all important areas of study (Thapa, 2008).
- Testing a child, adolescent, or an adult regarding their potential for instructive learning, for example, is unambiguous of the person's most common difficulty, regardless of whether in spelling, comprehending information, composing, or reading (Lambe, 2007).
- After the gathered examination convergence, experts may take some different push toward assessment in view of the person's age, just as concerns introduced by guardians and educators (Frank & Esbensen, 2015).

Addressing the Issue of Learning Difficulties

- There are numerous difficulties that occur, from adolescents to grown-ups having low self-esteem due to learning difficulties. As per Edition, (2013) here are a few things that can be done to build the self-esteem of a youngster or grown-up:
- It is important for young people to have clear guidelines to live by, which will help them build self-esteem and be able to perform consequently.
- Keep the objection in check while talking about the conduct that needs improving; be sure to zero in on the conduct, else they may connect it to being a terrible individual.
- Look for their qualities and the things they accomplish admirably, and acclaim them for those. Tell them you are proud of them when they do gleam.
- In recent years, the Center for Applied Special Technology-CAST (2011) developed an important Universal Design for Learning (UDL). The main principles of the UDL are: To motivate and encourage student participation, provide them a wide variety of media to improve ability to identify what is most important, facilitating the perception and understanding of what is presented, and let them select the way to prompt their learning or categorize all that they find useful for them. Though the Universal Design for Learning (UDL) framework is used effectively in crafting tools and lessons, Gunderson and Cumming (2022) describe how the application of the design is effective in inclusive learning environments. They proved the efficacy of UDL implementation in a training programme of

teachers comprised of content-focus, active learning, forming of effective practices, reflection, response, and constant attention for a long duration through a quasi-experimental study.

The Present Study

The present study was on "Specific Learning Difficulties in Students of Secondary School in Pakistan: A Survey based on Teacher's Perceptions". Students face different learning difficulties that result in poor learning achievement in examinations. In this study, researchers focused on evaluating four learning difficulties of secondary school students, namely dyslexia, dysgraphia, dyscalculia, language processing difficulties, and nonverbal learning difficulties. This study was conducted under the assumption that there was a need to prepare guidelines for future teachers to improve the learning of students and for future teachers to overcome their teaching-related issues.

Objectives of the Study

The objective of the study was to analyze the prevailing specific learning difficulties (SLD) and their factors in second grade students according to the teacher's perspective. The study objective was needed for future professionals who will deal with the special educational needs of students.

Methodology

This paper investigated the specific learning difficulties (SLD) of secondary grade students in Pakistan, whose difficulties can lead to school failure. It is a prerequisite for present and future school teachers to be aware of their difficulties to facilitate them in the school environment. This quantitative research allowed for the determination of the vision of the participating sample with regard to the subject with a descriptive character.

Sample

In Punjab, the most populous province of Pakistan has total 133, 2606674 secondary class teachers in public sector (https://schoolportal.punjab.gov.pk/sed_census/2018). The study used a cluster sampling technique and selected three (03) districts of Punjab province, but districts were selected with random sampling. A sample was taken according to the sample frame Adapted from Krejcie & Morgan, (1970, p.608) by Gay *et al.*, (2009). In this study, a sample of 800 was chosen. Table 1 shows details of the sample based on their demographics.

Table 1: *Demographic Results of Questionnaire*

	Categories	**Frequency**	**Percent**
Locality of Institution	Rural	391	49
	Urban	409	51
Gender	Male	422	53
	Female	378	47
Qualification	MA	787	98
	M. Phil	13	2
Job Experience	1-5 years	46	9
	6-10 years	93	12
	11-15 years	501	63
	16-20 years	57	7
	21-25 years	103	13
Professional Qualification	B.Ed	550	69
	M.Ed	227	28
	Others	23	3

Instrument

As the study was descriptive in nature, a 25-item instrument was designed and administered to collect data. It consisted of the following sections:

- Demographic variables included institution name, locality, participant name, gender, academic and professional qualifications, and job experience;
- It was based on a four-point Likert-type scale from strongly agrees to strongly disagrees. The neutral portion was not added there so that researchers could get clear feedback from participants.
- Students reported (25 items) dyslexia, dysgraphia, dyscalculia, language processing difficulties, and nonverbal learning difficulties as specific learning difficulties.
- Professionals' perspective for the factors of SLD and their opinion about Universal Design for Learning (UDL) developed by Center for Applied Special Technology –CAST(2011) was investigated by 3 open ended questions.

Data Collection

At first, the data-collection instrument was designed, but before the collection of data samples, teachers were assured of anonymity and their confidential participation Therefore, participants' informed consent was obtained.

Results of the Study

Data was analyzed using frequency, percent of score, and mean. SPSS (version 22nd) was used for the analysis of data on the computer. The results of the study were divided under headings to find out different specific learning difficulties. For interpretation of data, 2.1 and above were taken as criteria to accept agreement of respondents to the statement. Further, the range of 2.1-2.50 was interpreted as agreement of respondents on moderate and 2.51 and above as strong agreement.

Prevalence of SLD – Dyslexia

The first five items investigated the evidence of specific learning difficulty –Dyslexia at secondary school level according to teachers' perspective.

Table 2: *Specific Learning Difficulty- Dyslexia*

Item #	Statements	Mean	SD
1	Student feels difficulty in learning spellings.	2.53	.904
2	Student can't erase mistakes without damaging the paper.	2.81	.737
3	Student can't read a page without any difficulty.	2.39	.865
4	Student avoids reading for pleasure.	1.83	.744
5	Student feels difficulty in remembering the content that is read earlier.	1.81	.438

In Table 2 the mean values of these five items depicted the respondents' agreement for SLD Dyslexia is strong agreement and agreement except item 4 and 5. The SD results show a certain degree of spread of opinions across respondents except for the item 5. The respondents held a view that dyslexia is evident in students of secondary grades who face SLD regarding learning of spellings, erasing of mistakes, damaging the paper, and difficulties in page reading. On the other hand, mean score analysis pointed out fewer tendencies of students regarding unpleasant feelings related to reading and difficulty in remembering the context of earlier reading. Respondents' agreement on items one and two was to the highest degree in comparison to their views regarding other items.

Prevalence of SLD –Dysgraphia

In the questionnaire, five items were projected as the extent of dysgraphia prevalence in secondary grade students according to teachers' perception. Table 3 shows the descriptive statistics of the results of the aforementioned factor.

Table 3: *Specific Learning Difficulty- Dysgraphia*

Item #	Statements	Mean	SD
1	Student handwriting is poor and disorganized.	1.45	.653
2	Student is not good at drawing.	2.37	.999
3	Student gets tired quickly while writing.	2.25	.835
4	Student can't color a picture neatly.	1.89	.817
5	Student can't tie a knot easily.	2.35	1.091

The prevalence of SLD dysgraphia in secondary classes was rated as moderate for items 2, 3 and 5. In association, item 1 has the lowest mean score and the lowest value of standard deviation. That means most teachers unanimously perceive that poor and disorganized handwriting is not significantly observed in secondary classes' learning difficulties. Except for items 1 and 4, the other three items tailed moderately close where a small range of mean values falling between 2.25 and 2.37 with values of 0.83 to 0.999 for standard deviation were found. Nevertheless, the moderate feedback of the respondents towards these three factors confirmed their influence on learning difficulties.

Prevalence of SLD - Dyscalculia

To attempt to understand if dyscalculia affects students' learning capacity according to the perception of respondents' the five items contrived Table 4 summaries the mean score and dispersion of the 800 responses.

Table 4: *Specific Learning Difficulty- Dyscalculia*

Item #	Statements	Mean	SD
1	Student feels difficulty in solving simple math.	1.81	.438
2	Student feels difficulty to link symbols with amounts.	1.81	.445
3	Student is not comfortable to recognize patterns and sequencing numbers.	1.81	.444
4	Learning new math concepts has difficulty for my student.	1.81	.438
5	Student is not good in estimating quantities of things.	2.19	1.081

Prevalence of SLD - Language Processing

Four items, excluding item number five, received a lower average than 2.00, which is the mid-point of the 4-point scale. Item five leads to the highest mean value, while items 1 to 4 receive the same value. In items one to four, the less favourable score typified the disagreement of teachers with the dyscalculia factor in secondary classes. The SD results show a certain degree of spread of opinions across respondents, except for item five. Refereeing from what the secondary grade teachers perceived, the implementation of math concepts is not a significant problem at the secondary level. The factors occurring within SLD with language processing were explored through the five items shown in table 4. The respondents' perception was computed and interpreted in Table 4.

Table 5: *Language Processing Difficulties*

Item #	Statements	Mean	SD
1	Student feels difficulty to communicate effectively with others.	2.45	.846
2	Student doesn't enjoy jokes of his/her friends.	2.43	.936
3	Student feels difficulty in following directions.	1.55	.795
4	Making a sentence from a word is a difficult task for him/her.	2.73	1.115

5	Student doesn't know how to use simple punctuation marks in a sentence such as full stop and commas.	1.55	.668

Table 5 shows that respondents rated items one and two at moderate while item four was strongly agreed upon the impact of language processing difficulties in SLD. In association, items three and five have the lowest mean score. It was quite clear that respondents considered the language processing difficulties most central (see mean score of items 1, 2, and 4). The last one belonged to a very common language processing challenge and the teachers' belief that at the secondary level, these common errors are not so high.

Prevalence of SLD - Nonverbal learning difficulties

Considering the nonverbal learning difficulties in multi-layered SLD, items 1 to 5 cover their influence in secondary classes. These five items were planned to explore the informants' personal beliefs about the prevalence of these factors in the local context. The responses to standard deviation and scores of mean are engulfed in the below table.

Table 6: *Nonverbal learning difficulties*

Item #	Statements	Mean	SD
1	Student cannot copy shapes of cubes.	1.93	1.050
2	Student feels difficulty to find the main idea of a story or paragraph.	2.04	.891
3	Student feels difficulty in reading facial expression and body language.	2.81	.918
4	Student feels difficulty in following the steps of a process.	1.72	.962
5	It is not easy for him/her to move between topics in conversation.	2.19	.584

The highest mean value lies in item 3, followed closely by item 5 and item 2. Apparently, the teachers' personal beliefs about nonverbal learning difficulties are strongly agreed upon. The lowest two mean values rest on items 1 and 4. There is no doubt that some of the factors in this learning difficulties category had an impact on students with SLD. However, it is not easy to understand why the spread of opinions across respondents is greater. This might be that the teachers had not noticed this factor in their students who were facing learning incapacities. Overall, the five factors were found relevant to the formation of SLD.

Summative view about the order of learning difficulties of students

Table 7: *Rank order of learning difficulties*

Factors	∑ Mean	∑ SD	Rank
	Mean	SD	Order
Dyslexia	11.37	1.681	1
Language processing difficulties	10.69	1.858	2
Nonverbal learning difficulties	10.69	2.142	2
Dysgraphia	10.30	2.036	4
Dyscalculia	9.42	1.457	5

Table 7 presents the summative mean score and standard deviation for the prevalence of specific learning difficulties in secondary grade students according to the perception of their teachers. The highest mean value lies in the factor dyslexia, followed closely by the factors of language processing and nonverbal language difficulties, which share the same rank order. The lowest rank in the summative mean is for the dyscalculia factor. Overall, the five factors were found to be relevant to the development of SLD, with the greatest variance in opinions among respondents in the factors of greater language processing and nonverbal language difficulties.

Teachers' Perspective for factors of SLD

At the end of the questionnaire, two open-ended questions were for the purpose of knowing the reasons behind students' learning difficulties. A total of 380 out of 800 didn't respond to these two questions. The other respondents' results were as follows.

- Few respondents (5%) replied that the diagnosis of students with SLD at secondary level is very late to help them, so in primary classes their problems should be diagnosed;
- Almost 30% of teachers reported that use of educational technology can equalize students' abilities and can result in positive results as the tools can be adapted to the needs of each student in a personalized way, but in our schools these students are not catered to individually;
- Nearly 25% reflected that a simple and inexpensive resource to bring to the classroom is multiple co-curricular activities and individual attention to the child with SLD, which is to some extent not up to the level;
- Almost 45% responses highlighted the socio-economic factors that were beyond their control such as students' family status, their parents' education, the family source of income and parenting style that affected student learning capacity. The objective of study was to know professionals' perception about specific learning difficulties of secondary grade students and their perception for the factors specific learning difficulties;
- Virtually 99% respondents didn't respond about Universal Design for Learning (UDL).

Discussion and Conclusion

This research focused on finding out the specific learning difficulties of students in secondary classes. The purpose was to find out the vision of educational professionals about the factors of SLD and opinions for Universal Design for Learning. The obtained results demonstrated quite an average level of knowledge of the sample about the awareness of students' learning difficulties. Very few participants had knowledge of Universal Design for Learning. However, almost all of them believe that specific learning difficulties are common in secondary school students, but on average, they respond to specific learning difficulties factors. Regarding Question one of this research, the evidence of dyslexia in which students encounter with phonemic mindfulness, spelling, and understanding, the respondents held a strong view that dyslexia exists in students of secondary grades who were facing SLD. This is consistent with a previous study by Peng et al. (2020), showing an overview regarding mathematics and language outcome correlations. These results back the United Nations' (2006) conclusion for an inclusive school system. Results in regard to question 2 show evidence of dysgraphia that affects students' composing clarity or considered as a disorder of written expression, mostly respondents consistently notified that one element of dysgraphia, "poor and disorganized handwriting," is not significantly observed in secondary students' learning difficulties. For other elements of dysgraphia, the moderate feedback of the respondents confirmed their influence on learning difficulties. These findings support the results of Chenault, Thomson, Abbott, et al. (2006) and Berninger, Winn, Stock, et al. (2008). Students of middle and high school who continue with writing difficulties possibly have a need for supplementary clear instruction in composition.

Regarding question 3 of the research evidence of dyscalculia factor in secondary classes, the implementation of basic math concepts is not a significant problem at the secondary level. The fourth question of this study was to explore language processing difficulties, and the fifth investigated teachers' perceptions of nonverbal learning difficulties. The results of both factors are moderate, which shows a certain degree of influence of these factors towards students with SLD. As per demographic variable, all participants were professionally trained but they were aware of modern educational technology to support SLD students. For instance, there was no response about the effectiveness of Universal Learning Design.

In general, considering all of the above findings, it is concluded that good teaching can take place if teachers are positively inclined toward students with SLD and extend their support to students' individual learning difficulties. Second, to achieve the best possible results in inclusive settings, teachers' proficiencies should be reinforced to make sure those students' difficulties are diagnosed at an early stage of their schooling. The study conclusion is in line with Loreman (2007) and Pijl (2010) recommendation that policymakers could be responsible for further funding to recruit more teaching staff and offer broader vision to teachers through in-job training.

Third, despite findings from research by Al-Zboon and Adeeb Al-Dababneh (2021) that revealed a connection between the availability of technology resources and teachers' skills, school teachers in Pakistan do not use Universal Design for Learning (UDL). Their study findings are consistent with how students with learning disabilities are taught. But according to recent research, teachers mentioned having poor levels of technological knowledge, proficiency, and self-assurance. Many spoke about the difficulties in getting training and assistance for using educational technology.

Recommendations

1. The development and facilitation of students with SLD should be pursued through the use of digital learning tutorials.
2. Teachers must increase their awareness of the various methods available to address learning challenges and promote inclusive education for all students.
3. To be able to impact future educators' learning and help them to develop a holistic approach to dealing with pupils, it is crucial to understand where their knowledge began.

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Conflict of Interest

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References

Al-Zboon, E. & Al-Dababneh, A.K. (2021). Using assistive technology in a curriculum for preschool children with developmental disabilities in Jordan. *Education 3*(13), 1–17.

American Association on Intellectual and Developmental Disabilities. (2015). Definitions, classification, and systems of supports. Washington, DC

Asghar, S., Ishaq, M., & Saleem, Z. (2022), A study of socio-psycho causes of failure of female students at secondary level in district Kotli, AJ&K. *Pakistan Journal of Social Research* 4(2), 109-118.

Banker, S.M., Ramphal, B., Pagliaccio, D. (2020). Spatial Network Connectivity and Spatial Reasoning Ability in Children with Nonverbal Learning Disability. *Sci Rep, 10,* 561.

Berninger, V.W., Winn, W.D., Stock. P. (2008). Tier 3 specialized writing instruction for students with dyslexia. *21*, 95-129. 10.1007/s11145-007-9066-x

Bobzien, J. (2014). Academic or functional life skills? Using behaviors associated with happiness to guide instruction for students with profound/multiple disabilities. *Educational Research International,* 1-12. doi:10.1155/2014/710816

Brun, L., Dompnier, B., & Pansu, P. (2022). A latent profile analysis of teachers' causal attribution for academic success or failure. *European Journal of Psychology of Education, 37*(1), 185-206.

CAST-Center for Applied Special Technology (2011). *Universal Design for Learning Guidelines Version 2.0*; CAST: Wakefield, MA, USA,

Chenault B., Thomson J., Abbott, R.D. (2006). *Effects of prior attention training on child dyslexics' response to composition instruction*. Dev Neuropsychol

Dalsen, J., Neeper, L. A., & Ruppar, A. L. (2016). Special education teachers' perceptions of preparedness to teach students with severe disabilities. *Research and Practice for Persons with Severe Disabilities, 41(*4), 273-286

Edition, F. (2013). Diagnostic and statistical manual of mental disorders. *Am Psychiatric Assoc, 21*(21), 591-643.

Frank, K., & Esbensen, A. J. (2015). Fine motor and self-care milestones for individuals with down syndrome using a retrospective chart review. *Journal of Intellectual Disability Research, 59*(8), 719-729.

Gay, L.R., Mills, G.E., & Airasian, P.W. (2009). *Educational research: Competencies for analysis and applications, student value edition.* Upper Saddle River, NJ: Merrill.

Gillard, J. (2016). *Help yourself! 8 tips for teaching kids to be more independent*. Today's Parent

Gunderson, J. L., & Cumming, T. M. (2022). Podcasting in higher education as a component of Universal Design for Learning: A systematic review of the literature. *Innovations in Education and Teaching International*, 1-11.

Hussein, S. J. (2009). Social and educational determinants of child mental health: Effects of neighborhood, family, and school characteristics in a sample of Pakistani primary school children. *Journal of Pakistan Psychiatric Society, 6*(2), 90-97.

Linstead, E., Dixon, D. R., Hong, E., Burns, C. O., French, R., Novack, M. N., & Granpeesheh, D. (2017). An evaluation of the effects of intensity and duration on outcomes across treatment domains for children with autism spectrum disorder. *Translational psychiatry, 7(9),* e1234

Loreman, T. (2007). Seven pillars of support for inclusive education: Moving from "why?" to "how?" *International Journal of Whole Schooling, 3(*2), 22–38.

Myers, S. M., & Johnson, C. P. (2007). Management of children with autism spectrum disorders. *Pediatrics, 120(*5), 1162-1182

Peng, P., Lin, X., Ünal, Z. E., Lee, K., Namkung, J., Chow, J., & Sales, A. (2020). Examining the mutual relations between language and mathematics: A meta-analysis. *Psychological Bulletin, 146(*7), 595–634.

Pijl, S. J. (2010). Preparing teachers for inclusive education: Some reflections from the Netherlands. *Journal of Research in Special Educational Needs, 10* (1), 197–201.

Safdar, G., Javed, M.N., Amin, S. (2020). Use of Internet for Educational Learning among Female University Students of Punjab, Pakistan. *Universal Journal of Educational Research, 8*(8), 3371-3380. DOI: 10.13189/ujer.2020.080809

Safdar, G., Khan, A.W. (2020). E-Learning: Current Scenario of Internet and Educational Learning among University Students of Punjab, Pakistan. *Journal of Educational Research, 23*(1), 171-185.

Safdar, G.**,** Khan, A.W., Abbasi, A. (2018). Role of Social Media for Promotion of Education in Southern Punjab. *Journal of Education Research, 21*(1), 73-85.

Shaw, S. R. (2010). *Rescuing students from the slow learner trap. Principal Leadership*, 12-16, National Association of Secondary School Principals

Swanson, E. A., & Vaughn, S. (2015). Special education research advances knowledge in education. *Exceptional Children, 82(*1), 11-24.

Thapa, K. (2008). *Perspectives on learning disabilities in India: current practices and prospects*. New Delhi: Sage, 23-47.

United Nations (2006). Convention on the rights of persons with disabilities. http://www.refworld.org/docid/4680cd212.html

Wong (2015). Evidence-based practices for children, youth, and young adults with autism spectrum disorder: A comprehensive review. *Journal of Autism and Developmental Disorders, 45(*7), 1951-1966.