

## Learning Disabilities in Pakistani Students: A Review Paper with Focus on Dysgraphia

<sup>1</sup>Shabana Kousar, MS Scholar Department of English, University of Sialkot, Punjab, Pakistan.  
Email ID: [shabanagorsi1@gmail.com](mailto:shabanagorsi1@gmail.com)

<sup>2</sup>Muhammad Aqeel, PhD Scholar  
Department of English, University of Sialkot, Punjab, Pakistan.  
Corresponding Author Email ID: [aqeelpk786@yahoo.com](mailto:aqeelpk786@yahoo.com)

<sup>3</sup>Muhammad Sabboor Hussain, PhD  
Department of English, University of Sialkot, Punjab, Pakistan.  
Email ID: [dr.muhammadsabboorhussain@uskt.edu.pk](mailto:dr.muhammadsabboorhussain@uskt.edu.pk)

### Abstract:

*The present study mainly deals with dysgraphia as a learning disability among Pakistani students. Dysgraphia in writing among students affects mental and cognitive processes. From an educational perspective, learning disabilities affect students' performance. These disabilities also disturb the brain's abilities, such as information storage, processing, and analyzing. Students with learning disabilities face issues in all communication/language skills, such as speaking, reading, listening, and writing. Such disabilities/problems create an atmosphere of frustration, low self-esteem, and poor academic performance. These disabilities are necessary to discuss because teachers and policymakers must understand them at an early stage and control them using some cognitive, psychological, and administrative steps. An early-stage identification of these learning disabilities, finding the remedies, and coming up with academic solutions can improve such students' academic standards. This study also recommends suitable steps to overcome such disabilities among Pakistani students.*

**Keywords:** Learning Disabilities; Dysgraphia; Language Skills; Academic Performance

### Introduction

Learning disabilities have been impacting people of different age groups in Pakistan. Efforts have been made to raise awareness and assist people with such disabilities, but the challenging nature of such disabilities makes it hard to spot and deal with them. One of the key issues is that most of the population is not familiar with the concept of learning disabilities. Therefore, it becomes hard for educators and parents to detect symptoms and measure the impact these disabilities have on the social and academic growth of others around them. As a result, it not only adds to the troubles faced by the victims but also surfaces as a hindrance to identification and intervention. Ashraf & Najam (2017) claim that Pakistani students have been victims of this issue due to the lack of familiarity, ongoing cultural stigmas, and inappropriate use of present resources. Those who suffer from this issue do not get aid or diagnosis facilities. Not only the lives of people suffering from this gets miserable, but their families are also highly affected by socioeconomic factors such as lack of access to education and poverty.

Students with learning disabilities in Pakistan face several challenges. Resources and support services for such individuals seem nowhere to be found. Pakistan's education system does not take into account the diverse needs of students, especially the ones with learning disabilities. Schools often lack trained teachers, suitable technologies, and aid programs, which can play a vital role in meeting the needs of students with learning disabilities. Moreover, in Pakistan, shame has been associated with learning disabilities. It keeps individuals from asking for help and support. Most of the population looks at learning disabilities in a negative light, as intellectual inferiority, which leads to partiality and elimination from educational and employment terrains.

As cited before, socio-economic factors contribute to aggravating the challenges experienced by people with learning disabilities in Pakistan. Underprivileged families with insufficient financial means have limited access to private assessments and interventions, thus broadening the educational disparity. Singal et al. (2020) claim that student course enrollment issues and learning outcomes for children with disabilities still prevail in Pakistan. Despite the efforts made to enlighten people about non-exclusionary education and its promotion, a great number of children with disabilities have problems accessing education due to constraints of physical infrastructure, insufficient means, and societal discrimination.

In this regard, the government of Pakistan has enforced many policies and ventures to deal with children's learning abnormalities and foster inclusive education countrywide. Strategies to heighten access, fairness, and quality of education have been designed by the National Education Policy (NEP). The NEP stresses the significance of spotting and assisting students with learning disorders with the help of early intervention programs, training of educators, and the supply of specialized services. Barga (1996) states that the NEP has concentrated on improving access to high-quality education based on equality to facilitate equitable learning and academic outcomes. It integrates professional development for educators to create a standard skills-based curriculum and incorporates ICT. In order to achieve its goals, the NEP also seeks to address disparities in the quality of education offered throughout Pakistan's different domains. It encourages collaboration among private and public sectors.

Moreover, the government has launched different programs, namely the Special Education Centers and the Inclusive Education Support Program, to satisfy the demands of disadvantaged learners with learning disorders. Such initiatives aim to help children with

learning difficulties fit into regular schools by providing accommodations, technological aids, and tailored support. Likewise, the authorities are working with foreign partners and non-governmental organizations (NGOs) to carry out awareness campaigns, offer tools for education, and train teachers to address classroom learning issues efficiently. Regardless of such programs, there are still numerous barriers to the effective handling of learning impairments among Pakistani learners, such as lack of financing, outdated facilities, and a cultural sense of shame attached to them. To ensure that all children, especially those with intellectual impairments, have equal access to quality learning and assistance facilities, it is crucial to preserve resources for inclusive educational policies, training of teachers, and community involvement.

### **Types of Learning Disability**

In academic settings, students face a wide range of disabilities, which may present many challenges to their education and growth. Learning disabilities, with several conditions, may influence the acquisition and application of abilities related to listening, speaking, reading and writing, thinking, and mathematics. Dyslexia, dysgraphia, dyscalculia, and auditory processing disorder are among others. Despite having average or above-average intellectual ability, students with learning challenges usually struggle with academic assignments and require specific guidance and assistance to thrive in their educational institutions.

In the words of Crammond (2013), children who suffer from particular learning difficulties frequently have trouble with a broad range of cognitive-developmental mechanisms, which are crucial to success in school. Dyslexic people, for instance, might suffer from issues with handling phonology. It disrupts their reading and spelling skills and makes it hard for children to identify and manipulate the sounds in speech. In this way, children affected by dyscalculia might be unable to process numerals, which could influence their ability to grasp arithmetic protocols and key mathematical ideas. It can be really hard for children with different kinds of learning disabilities to plan, organize, and execute tasks successfully as their executive functioning, which involves abilities like attention management, retention of information, and organization, is yet another area which needs research and reflection.

Learning disabilities may have portentous results. Complete involvement in educational activities is additionally hindered by disabilities that include muscle dystrophy, cerebral palsy, and spinal cord damage. These conditions can affect one's fine motor abilities, movement, or processing of sensory information. Consequently, modifications to the classroom setting,

technological aids, and distinctive instructional techniques can prove useful. Students may also suffer from sensory complications, such as vision or hearing difficulties, that can significantly impact how they interact with others and utilize information in the classroom. Braille materials, computers with screen readers, or sensory diagrams are all appropriate for pupils who are blind or have impaired visibility. Meanwhile, annotated videos, radio systems, or sign language interpreters can prove valuable for those who are deaf or hard of hearing.

Likewise, there certainly is a possibility that adolescents may develop developmental problems such as intellectual disabilities, disorders of speech and language, or autism spectrum disorder (ASD). These health issues may negatively affect an individual's social skills, communication abilities, and cognitive abilities, which makes it necessary to supply students with specialized support and treatments according to their specific requirements and abilities.

### **Dysgraphia**

Dysgraphia is a learning disability condition that mainly interferes with writing skills. People with dysgraphia find handwriting, spelling, and transferring their thoughts on paper very difficult. The problem tends to show up in various ways, including unreadable writing, abnormal letter formation, and trouble structuring ideas effortlessly in writing. Dysgraphia is not a problem related to intelligence, so students suffering from it have mediocre or excellent intellectual abilities in other domains (Mayes et al. 2018).

Within a working memory model, dysgraphia, dyslexia, and language learning impairments are different from one another (Berninger, 2008). Knowledge of the distinctive cognitive functions of dysgraphia, dyslexia, and language learning disabilities is essential for defining them in a working memory model. The ability to construct written language is affected by dysgraphia. However, reading, and related language-based functioning are the primary areas that suffer from dyslexia. Language problems with learning encompass problems with learning vocabulary, building sentences, comprehending, and language use. Working on classroom tasks such as written assignments, tests, and note-taking is a struggle for dysgraphia students. This leads to frustration and anxiety, which further results in unwillingness to get involved in writing tasks in their entirety. Dysgraphia students cannot keep up with their fellows in classroom tasks and tests due to issues with speed and fluency.

By placing accommodations and adjustments in place, those learners can engage with the educational material and effectively exhibit what they know. For instance, giving alternatives for

handwriting, such as typing on a computer or speech-to-text programs, may reduce the mental and physical strain of handwriting while enabling students to focus on expressing their ideas. Additionally, students with dysgraphia may improve their writing ability with systematic training in spelling strategies, organization strategies, and writing techniques. Students can become more self-assured and autonomous writers by splitting tasks such as writing into feasible segments and providing scaffolding assistance.

Collaboration between teachers, parents, and specialized professionals, such as occupational therapists and educational psychologists, is essential in developing comprehensive intervention plans for students with dysgraphia. By dealing with the core issues linked with dysgraphia and offering specialized guidance, teachers can prepare their students to develop necessary writing skills, make progress in the field of education and look for forthcoming professional and educational ventures. Furthermore, establishing an educational atmosphere that is welcoming, uplifting and embracing every student's distinctive abilities and traits may help those who have dysgraphia and help them flourish in school as well as in general.

### **Literature Review**

Ayar et al.'s (2022) study in the field of learning disabilities highlights the complexity and diversity of conditions that affect academic and functional skills. The authors further state that learning disabilities, characterized by significant difficulties in reading, writing, mathematics, or other areas, stem from neurological differences. This study emphasizes the importance of early identification and interventions tailored to individual needs, advocating for a multi-disciplinary approach to support affected individuals.

Gary et al. (2023) discuss that dysgraphia focuses on challenges with writing, including handwriting, spelling, and organizing thoughts on paper. They suggest that dysgraphia is not merely a mechanical skill deficit but involves cognitive processing issues. Interventions often include occupational therapy to improve fine motor skills alongside strategies to help with the structure and content of writing.

Cataudella et al. (2021) describe that psychological disorders and learning disabilities reveal a complex relationship where one can exacerbate the other. Anxiety, depression, and ADHD are frequently cited as co-occurring conditions that can impact learning. The study calls for comprehensive assessments that consider learning and psychological needs to create effective support plans.

Kalloom et al. (2020) discuss dyslexia as one of the most studied learning disabilities among children and students in reading and related language-based processing skills. This body of research supports the phonological theory of dyslexia, which posits difficulties in language phonological processing. Effective interventions often focus on phonics-based reading instruction, with evidence supporting early and intensive remediation.

Castaldi et al. (2020) discuss that dyscalculia makes it difficult for learners to understand numbers, manipulate numbers, and perform calculations. This research indicates that there may be some deficits in spatial reasoning, memory, and sensing the numbers. Need-based interventions, including multi-sensory, visual aids and manipulatives may make mathematical understanding easy for people facing learning difficulties.

Butterworth, (2005) reveals that developmental dyscalculia is a specific learning disability in mathematics; it is different from other kinds of math difficulties that result from external factors. Also, this research emphasizes the importance of early detection of this disorder and developing specialized instructional strategies to understand fundamental mathematics concepts. Language Processing Disorder (LPD) sufferers have difficulty understanding and translating the meaning of sounds into words, sentences, and other forms of words like stories. The literature also distinguishes between expressive and receptive LPDs. Speech therapy is suggested to improve understanding and expression of words.

Mammarella and Cornoldi (2014) describe NVLD as a disorder that makes it difficult to differentiate between verbal and nonverbal skills. The research suggests that individuals with NVLD may benefit from interventions that organize and interpret visual-spatial information. Capellini et al. (2021) state that visual perceptual and visual motor deficits explain how these issues affect learning and coordination. People with this disorder may struggle to perform reading, writing, and other academic tasks.

In the domains of these disorders, research emphasizes the need for early detection, customized strategies, and support for individuals facing these disorders. Integration support from technology and multi-sensory interventions is also needed to support learning. There is also a need to make people aware and educate communities to improve understanding. Trainers, educators, parents and influencers may support these groups for improvement.

### **Research Methodology**



Understanding the context of learning disorders among Pakistani students and the need to develop a comprehensive approach to studying dysgraphia, this paper adopts a deep and effective review of secondary data and literature on dysgraphia and learning disabilities in Pakistan. Through consultation of educational policies and experts in the field, this review aims to provide valuable insight into the challenges faced by students with learning disabilities.

### **Significance of the Study**

There is a need to understand and address critical aspects of inclusion in education and studying dysgraphia among students in Pakistan. The paper addresses a critical aspect of inclusive education and improving academic outcomes for individuals with learning disabilities in the country. Dysgraphia is a learning disorder that impacts students' ability to understand, learn, succeed academically and develop essential writing and learning skills. In the context of Pakistan, there is a need to put joint efforts of parents, educators, policymakers and other stakeholders to know, understand and reflect on challenges and opportunities for children with learning disabilities. Interventions, support services, programs, and strategies must be designed to address challenges effectively. There is potential to contribute to inclusive education and developing a learning environment for such children.

### **Context Analysis**

A context analysis of students with learning disabilities, specifically those suffering from dysgraphia among students in Pakistan, shows that there are multiple issues and challenges in the educational system. Dysgraphia is known as difficulty in writing, spelling, and organizing thoughts. These students face obstacles in academic achievements. Various learning disabilities prevail in Pakistan, including dyslexia, ADHD, and auditory processing disorders. Disabilities are different in nature and intensity, causing challenges to students.

There are multiple hindrances to the social and educational progress of students dealing with learning disabilities to perform in education and integrate socially. Designed interventions are ineffective due to low awareness in households of children, teachers and families. There are not enough services for such children to minimize their challenges. Poverty, cultural barriers and other stigmas are contributing factors in addressing these disabilities. These students are excluded from programs and face discrimination.

According to Malik et al. (2014), there are multifaceted causes of learning disabilities that depend on multiple factors. There are social and physical reasons, including complications

in birth, use of drugs, and neurological differences. In Pakistan, a comprehensive approach must be developed to mitigate the issues. There is a need to design multifaceted programs that must be tailored to meet the requirements of children suffering from dysgraphia. Training programs for students and teachers and awareness of the masses are much needed.

Psychological challenges, including stigma and cultural misconceptions, necessitate concerted efforts to raise awareness, promote acceptance, and foster a culture of inclusivity within schools and communities. Psychosocial interventions are needed to empower students and maximize their abilities. According to Shaukat (2023), there are many challenges for children dealing with such inabilities, including poor and inadequate physical infrastructure and fewer facilities for children.

### **Further Suggestions**

Students with learning disabilities such as dysgraphia face challenges in health and education in Pakistan. To support dysgraphia victims, writing and understanding skills must be improved. Lack of awareness may lead to misunderstandings and misinterpreting words and sounds. Educational institutions and policymakers must identify and support parents, teachers, and communities for a good, inclusive learning environment.

There is also a lack of specialized resources and support services for students with dysgraphia in Pakistan. Therapies for children and families need to be introduced and practised. Training programs for parents and society may also be beneficial in equipping them with the tools to offer appropriate support. Customized classroom activities, tailored writing aids, and technology-assisted learning options are also needed. The social stigma in Pakistan enhances the worst impacts of dysgraphia in Pakistan, which may be tackled by educating people and inclusive development. There is a need for understanding and acceptance of students and their families to provide support and facilitation. Teachers and education facilities are vital change agents.

Lastly, there is a need to develop a customized support framework and identify new support programs for students dealing with dysgraphia and other learning disabilities that could significantly improve the educational landscape in Pakistan: strategies and implementation plans with guidelines and policy recommendations are needed with quality accountability and evaluation. There is a need to have multi-stakeholder and integrated approaches to facilitate children and their families.



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