Introduction

There are 4.36 million children between the ages of 5 – 16 that are currently studying in government schools across Khyber Pakhtunkhwa. However, once enrolled, some of these students struggle to learn and can end up dropping out of school, through no fault of their own. One key reason for this is because a sizable proportion of these students suffer from learning disabilities.

Learning disabilities, such as dyslexia, are an invisible disability but one which affects numerous people. Unfortunately, most parents, teachers and students have little knowledge about learning disabilities. As a result, children that suffer from learning disabilities do not get the support they require. This leads to the child not only having to suffer in silence but also leading to underperformance/failure in school tests and dropping out of school – which can end up having negative lifelong consequences.

The Elementary and Secondary Education Department (E&SED), being concerned about the lack of knowledge regarding learning disabilities (especially dyslexia), wants to raise the public’s awareness on this invisible disability. The details below provide an overview of what dyslexia is, how children with a likelihood of dyslexia can be spotted, what parents, teachers and schools can do for dyslexic children and links to online resources on dyslexia and organisations within Pakistan that provide remedial therapy to dyslexic children.

What are Learning Disabilities?

Learning disabilities are invisible disorders that affect a person’s ability to understand or use spoken or written language, do calculations or pay attention. 1Learning disabilities affect the way a person receives and understands information. People who have a learning disability find it difficult to read, write, do math, or understand instructions. They are not less intelligent but they only see, hear or understand things in a different way. In children, learning disabilities of a mild level are usually not recognised until they start attending school. Such students face additional challenges in the classroom. Learning disabilities may impact either a single area like education/office work or multiple areas like family situation and daily routines.

There are three categories of learning disabilities:

1. Dysgraphia: Dysgraphia means having a difficulty to write. More specifically this means a person is not able to write neatly in a certain space2, takes a lot of time and puts in effort to write simple alphabets.

2. Dyscalculia: Dyscalculia is a difficulty understanding questions of maths. A child that has dyscalculia may have more difficulty in solving basic math problems than other children of the same age and grade. Younger children with dyscalculia are unable to count or recognise numbers3.

3. Dyslexia: Dyslexia is a difficulty in reading. A dyslexic child may not understand letters, sentences or paragraphs. For example, children in grade one may rotate letters when writing, such as writing “d” instead of “b”. Also, children with dyslexia see words and sentences sometimes moving off the page. It is the most common and prominent form of learning disability affecting 1 in every 10 children4 on a global level.

What is dyslexia?

Dyslexia is a language-based disability in which a person has difficulty understanding written words. In simple terms, dyslexia is a reading disability or reading disorder5.

In schools, mainstream reading is considered a critical skill for students. Since a child’s life is centred around the school, children who are unable to learn because of dyslexia blame themselves for the “failure” and tend to feel unworthy.

Dyslexia starts from birth and is non-contagious. Although, there is no prevention or cure for dyslexia, addressing it at a young age can minimise the associated problems and ensure that children are able to learn well.

In order to do this, teachers and parents need to understand that children who are dyslexic only learn differently and they need individualised attention to learn. Making more use of other senses like hearing and touching can be useful.

For such children it is important that they understand their strengths. Children with dyslexia should be made to understand and believe that even if they have a hard time in learning, they have endless potential in various careers of their interest. Dyslexic children learn much later in life than other children of their age, but there are numerous examples of dyslexic children who grew up to become very successful people.

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2. Ibid


Mentioned below are some examples of people that have excelled in their careers despite being dyslexic:

**Muhammad Ali**
One of the best boxers in the world, was given a number of titles due to his successes such as ‘The Greatest’, ‘Fighter of the Year’, ‘Sportsman of the Year’, ‘Sportsman of the Century’ and ‘Sports Personality of the Century’. He understood the pains of struggling with dyslexia and started “Go the distance” magazines and resource pack to motivate young readers. This resource pack consists of 96 titles for students of grades 3 - 8.

**Albert Einstein**
Albert Einstein could not talk till he was four years old. He started reading when he was nine. Einstein was very weak in arithmetic and foreign languages. His teacher used to comment that “nothing good” would come of him. He kept struggling in school and also at work. His hard work resulted in him developing the general theory of relativity in Physics. Einstein also went on to win the Noble Prize in Physics in 1921.4

**Richard Branson**
He founded the Virgin Group which controls more than 400 companies, including an airline, hotels, telecommunications network and a space tourism company. He suffered from dyslexia and dropped out of school to start his own business at the age of 16. Remembering his school days, Richard Branson says: “I was seen as the dumbest person in school. Nobody had ever heard of dyslexia. I just looked at the blackboard, it was just a jumble. I had no idea what was going on, and therefore the idea that I could be successful didn’t dawn on me” 7

**Leonardo da Vinci**
Leonardo was an inventor, painter and sculptor. Due to dyslexia, he mostly wrote his notes in reverse. His extraordinary artwork like the Mona Lisa are famous worldwide. Inventive designs of Leonardo include the helicopter, parachute, machine gun and the armoured tank.8

**Lee Kuan Yew**
He was diagnosed with dyslexia at the age of 62. Lee was the first Prime Minister of Singapore. He completed his degree in law from the Cambridge University. Mr. Lee was fluent in many languages i.e. English, Malay, Chinese and Japanese. He also wrote several bestselling books.9

**Steve Jobs**
He was the co-founder of Apple Inc. Steve Jobs was raised by his adoptive parents and grew up to become one of the greatest minds in the technological industry and a very successful entrepreneur in American history. He struggled a lot in school. He managed to get admission in Reed College but dropped out after the first semester. After that he worked hard in a number of companies in the computer industry and became one of the most iconic CEOs.10

**Alexander Graham Bell**
Bell was a scientist, inventor and innovator11 and is credited for the invention of the telephone. He was also one of the founding members of the National Geographic Society. He suffered from dyslexia, but seeing his mother’s hearing disability, he kept struggling to invent a hearing aid for her. Finally, he got side-tracked and invented something very useful that we all use today; the telephone.

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What are the common symptoms of dyslexia?

There are certain signs of dyslexia that can help identify whether a person is dyslexic or not. These however can vary from person to person. Some factors make it complicated to notice dyslexia in children because they conceal it very well. Moreover, the symptoms of dyslexia are sometimes very similar to problems associated with other issues such as languages spoken at home being different than the medium of instruction in the child’s school. This can make the learning process slower. Dyslexia symptoms also vary with the child’s age.

Dyslexic children of three to four years age (pre-school) are likely to have the symptoms listed below:

1. Develop speech later as compared to other children of their age
2. Unable to pronounce long words and when they try to pronounce these words, they mix them up. For example, ‘Tephelone’ instead of ‘telephone’
3. Cannot express themselves properly because they do not know how to put sentences together or choose the appropriate words to use
4. Have little or no interest in learning letters

Symptoms of dyslexia in 5-12 year olds (school-going children) are:

1. They tend to write numbers and letters in the wrong order, for example “d” instead of “b”
2. They make regular mistakes when asked to read loudly
3. They have a slow writing speed
4. Their handwriting is not neat
5. They have difficulty in learning things that require a certain sequence, for examples names of months

What kind of support can be given to dyslexic children?

Even though dyslexia starts at birth, its effect on children’s learning and progress depends on the level of support received from their family, teachers and friends. Dyslexia is a lifelong disability associated with learning but it has a huge potential for improvement. Interventions to overcome dyslexia should focus on teaching methods, in the school and at home. With the support from teachers and parents, dyslexic children can learn effectively. They can be made to use their intellectual abilities such as oral skills, to overcome the difficulties in reading and spelling. Dyslexia creates challenges in learning and it is important for the child’s family and teachers to understand how a dyslexic child learns best.

How can parents help dyslexic children?

1. The most important thing is for parents to make their children realise that it is possible to be successful despite having dyslexia
2. Parents can tell their children about the difficulties they had in doing certain things and how they kept trying to improve, for example in hand-eye-coordination. This will make the children feel that they are not alone in their struggle
3. Dyslexics are mostly slow readers for life. So parents should not ask them to read faster but instead focus on reading correctly
4. Parents should develop a habit of reading in children by reading to them loudly
5. They should not discourage children with poor spellings and help them in spelling out words and using a dictionary. Helping children make a small personal dictionary that they can use at the time of writing can be helpful
6. Organisational skills are a big issue for dyslexic children. Parents should help such children by providing support by making a timetable for different subjects
7. Parents should try to provide a quiet place to dyslexic children for completing their homework
8. Measure the child’s success against self, not others i.e. the child should not be compared to other children
9. When your child returns from school, ask them to tell you about the school day. This way they will try to remember the day’s activities and picture different things that they did or plan to do the next day

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How can teachers help dyslexic students?

1. Teachers should communicate to the parents of the student that the child has a learning difficulty but it can be resolved with help from parents specifically while completing homework.
2. Seating the student in a place where they can easily access the teacher and also see the blackboard clearly.
3. Talk slowly and clearly with frequent pauses because such students need more time to understand, process words and take notes.
4. Not asking dyslexic students to read loudly in the class because this can be embarrassing. Instead, such students need to be given the passage in advance to read and practice it once at home.
5. Teachers should provide frequent feedback because dyslexic students need more reinforcement than other students.
6. They must also keep a set of resources with learning material that they find helpful for teaching dyslexic students. The same resource pack can then be used for other dyslexic students getting enrolled in the class.

How can schools help dyslexic students?

1. The foremost responsibility of the school is early identification of dyslexic students. This will allow the dyslexic student to be treated on time (a screening tool can be used, mentioned below).
2. Make teachers responsible to recognise and report signs of dyslexia as early as possible.
3. Schools should recognise and respect individual differences without victimising the students.
4. Make revised individualised teaching plans for dyslexic students.
5. Make special/appropriate arrangements for tests and exams, such as extra time.
6. Use alternative ways of accessing the child’s progress besides written tests. For example using verbal discussions on test topics.
7. Keep a marking policy that gives weightage to the dyslexic pupil’s efforts and progress made instead of considering the final result only.
8. Maintain regular and strong ties with parents, support organisations and students.
9. Ensure that teaching and non-teaching staff have knowledge of the type and severity of dyslexia and the problems that dyslexic children face.
10. Share regular reports on progress with the parents.

Resource material related to dyslexia

As mentioned in previous sections, parents and teachers of dyslexic children need to have a thorough knowledge about this learning disability. This will enable them to identify dyslexic children as early as possible so that timely intervention can be done. Furthermore, a better understanding of dyslexia and the best intervention methods will enable parents and teachers to tailor their support and teaching methodologies according to the needs of the children. There are numerous resource materials that are available online to help people with dyslexic children especially teachers. These resources and a list of organisations that work on learning disorders (particularly dyslexia) have been listed on the next page.

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<thead>
<tr>
<th>S. No</th>
<th>Type of resource</th>
<th>Details of resource</th>
<th>Organisation that developed the resource</th>
<th>Website link</th>
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<tbody>
<tr>
<td>1</td>
<td>Handbook</td>
<td>Characteristics of dyslexia, assessments and effective teaching approach</td>
<td>International Dyslexia Association</td>
<td><a href="https://app.box.com/s/8uczxxz2u5wq2wezoaagri6tn532w97bz">https://app.box.com/s/8uczxxz2u5wq2wezoaagri6tn532w97bz</a></td>
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<tr>
<td>3</td>
<td>Handbook</td>
<td>Guidelines and Procedures Concerning Dyslexia and Related Disorders</td>
<td>Mississippi Department of Education</td>
<td><a href="https://www.dyslexie.lu/dyslexiahandbook.PDF">https://www.dyslexie.lu/dyslexiahandbook.PDF</a></td>
</tr>
<tr>
<td>6</td>
<td>Informational paper for dyslexia</td>
<td>A guide for parents and teachers in providing evidence-based supports for students with dyslexia</td>
<td>Minnesota Department of Education</td>
<td><a href="https://education.mn.gov/mdeprod/groups/educ/documents/basic/mdaw/mdjvi/~edisp/022118~2.pdf">https://education.mn.gov/mdeprod/groups/educ/documents/basic/mdaw/mdjvi/~edisp/022118~2.pdf</a></td>
</tr>
<tr>
<td>7</td>
<td>Website</td>
<td>Textual material on dyslexia, free videos and presentations</td>
<td>Bright Solution for Dyslexia.Inc</td>
<td><a href="https://www.dys-add.com/getHelp.html">https://www.dys-add.com/getHelp.html</a></td>
</tr>
<tr>
<td>9</td>
<td>Website</td>
<td>Tips from dyslexic students and adults, success stories, parent's and teacher's role in supporting dyslexic children</td>
<td>The Yale Center for Dyslexia and Creativity</td>
<td><a href="http://dyslexia.yale.edu/resources/parents/what-parents-can-do/the-a-to-z-of-teaching-beginning-reading/">http://dyslexia.yale.edu/resources/parents/what-parents-can-do/the-a-to-z-of-teaching-beginning-reading/</a></td>
</tr>
<tr>
<td>10</td>
<td>Handout</td>
<td>Basic information on dyslexia (Symptoms according to age). Living and learning with dyslexia</td>
<td>National Centre for Learning Disabilities</td>
<td><a href="http://www.readingrockets.org/sites/default/files/Dyslexia">http://www.readingrockets.org/sites/default/files/Dyslexia</a> Toolkit.pdf</td>
</tr>
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### Toolkit

Study and exam strategies, the role of technology for assistance, how teachers should work with dyslexic students

The Open University


### Dyslexia Screening Tool in Urdu

Teachers/Parents' tool for shortlisting dyslexic students

Psychology Department, Islamia College, Peshawar

See Annex 01

### List of Organisations in Pakistan working on Dyslexia

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
<th>Phone No.</th>
<th>Address</th>
<th>Email address and website</th>
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</thead>
</table>
| IDEAS Institute of Dyslexia Education & Attitudinal Studies | Founded in September 2013 for the diagnoses, assessment and remediation of Dyslexics. IDEAS is a private institute for students with specific learning difficulties who demonstrate average to above average cognitive ability. | 03315357637 | St # 2, H # 9, Hostel City, near Comsat, Islamabad | Info@bazeecha.net  
https://www.bazeecha.net/id eas/ |
| Read Karachi | Read works with schools to modify curriculums, train teachers, conduct workshops catering to a school's particular needs plus provided resource teacher at schools. | 021-37180277 | 5 - C, 1st Lane, 1st Floor 5th Street, Ittehad Commercial Phase 6, DHA, Karachi | readyslexics@gmail.com  
www.readkarachi.com |
| Department of Psychology, Islamia College | The Department of Psychology is one of the departments of the Islamia College, Peshawar. It consists of nine lecturers and an Assistant Professor. The Psychology Department also manages a clinic which provides services to the general public. | 091-9222022 | Jamrod Road, University campus, Department of Psychology, Islamia College Peshawar (Postcode 25120) | chairman.psychology@icp.edu.pk |
| Kazim Trust | A non-profit organisation that aims to spread awareness and runs treatment programs for (LD) in children. | 021-35678039 | 313 Panorama Center, Building 2 Raja Ghazanfar Ali Road Saddar, Karachi – 74400 Pakistan | info@kazimadhdtrust.org  
http://www.kazimadhdtrust.org/about-us/ |
| Lahore Children's Centre (LCC) | Works in collaboration with London Children's Practice (LCP) to provide care, support and guidance to children with special needs | 042-35752962  
042-35753449 | Lahore Children's Centre, 65-A, Main Boulevard, Gulberg II, Lahore - Pakistan | http://lahorechildrenscentre.com/childrens-special-needs.html |