



# Learning Disabilities Screening and Evaluation Guide for Low- and Middle-Income Countries

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## **Abstract**

Learning disabilities are among the most common disabilities experienced in childhood and adulthood. Although identifying learning disabilities in a school setting is a complex process, it is particularly challenging in low- and middle-income countries that lack the appropriate resources, tools, and supports. This guide provides an introduction to learning disabilities and describes the processes and practices that are necessary for the identification process. It also describes a phased approach that countries can use to assess their current screening and evaluation services, as well as determine the steps needed to develop, strengthen, and build systems that support students with learning disabilities. This guide also provides intervention recommendations that teachers and school administrators can implement at each phase of system development. Although this guide primarily addresses learning disabilities, the practices, processes, and systems described may be also used to improve the identification of other disabilities commonly encountered in schools.

## Introduction

More than a billion people—approximately 15 percent of the world’s population—have some type of disability (World Health Organization [WHO], 2011) including sensory disabilities (such as blindness and deafness), intellectual disabilities, developmental disabilities, physical disabilities, and psychosocial disabilities. Although some individuals may acquire a disability as adults, many are born with a disability or acquire a disability in childhood. The United Nations Children’s Fund (UNICEF) estimates that 150 million children under the age of 18 have a disability. Such children often require special education services in school (UNICEF, 2005).

The United Nations Convention on the Rights of Persons with Disabilities (CRPD), adopted in 2006, mandates that children with disabilities have access to inclusive education. Inclusive education means that children do not attend segregated schools based on disability, but are instead educated in their local schools alongside their peers, with appropriate supports. As a result, many of the 177 countries (as of April 2018) that ratified the CRPD are developing new systems and supports to promote and ensure inclusive education opportunities for all children with disabilities (United Nations, 2006). Developing an inclusive education system, however, is often arduous and complicated for many countries.

Complicating this educational reform process are the challenges of identifying students with disabilities. Some disabilities may be apparent (e.g., mobility impairment), but others—such as learning disabilities—cannot be determined based on appearances alone.



A learning disability is a neurological disorder that affects a student’s ability to read, write, spell, reason, and organize information taught in conventional ways (Learning Disabilities Online, 2017). When given the appropriate classroom supports, students with learning disabilities can be very successful learners.

Identifying a student with a learning disability requires

- a multistep process,
- the use of tools and resources that are translated and adapted to the local cultural context, and
- the participation of a multidisciplinary team of experts.

Many countries recognize the need to support students with learning disabilities and are looking for ways to provide that support. Unfortunately, in doing so, many have moved straight to trying to identify learning disabilities without having the needed systems, tools, and practices in place to do it effectively. This type of identification goes against international best practices. An incomplete or ineffective screening and evaluation process can lead to large rates of misdiagnosis, and students may not receive the services and supports they need to be academically successful.

RTI takes seriously the imperative to address the needs of vulnerable children and to give all children the best possible education. In all of its projects, RTI promotes equitable, quality inclusive education, helping governments to put policies and mechanisms in place to meet that long-term goal. This guide is one in a series of guides intended to support school systems, schools, and teachers as they meet the learning needs of their students, including students with disabilities.

High-incidence disabilities, like learning disabilities, speech challenges, behavioral challenges, and mild intellectual disabilities, generally affect 80 percent of all students receiving special education services in United States schools (Friend & Bursuck, 2012). For instance, in the United States, an estimated one of every five people may have a learning disability (Center for Parent Information and Resources, 2015), the most prevalent of all disabilities. Low-incidence disabilities can include deafness, blindness, moderate to severe intellectual disabilities, and developmental disabilities such as autism and physical disabilities.

## Structure of This Guide

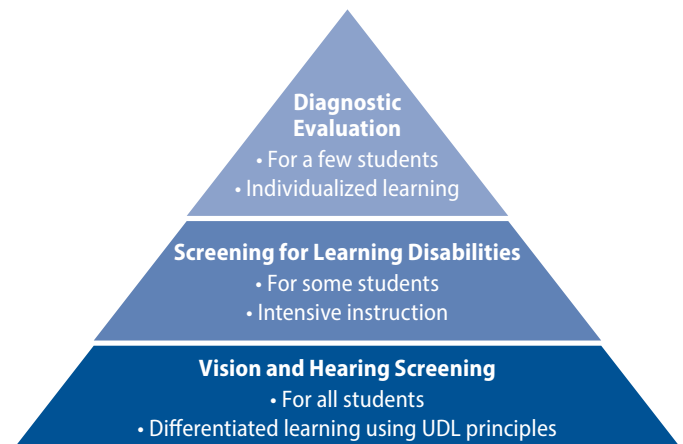
This guide defines learning disabilities and describes the processes and practices that should be in place before a teacher, school, or school system screens or evaluates students for suspected learning disabilities. The guide then provides a phased approach to conducting screenings and evaluations for learning disabilities, outlining the requisite systems needed before conducting either a screening or evaluation. This approach also recommends interventions that teachers and school administrators can introduce at each phase to support students with learning disabilities. The guide's primary audience includes representatives from ministries of education, teachers, families,<sup>1</sup> individuals from international organizations, and other relevant stakeholders who identify students with disabilities. Representatives from disabled persons organizations (DPOs) may also find the guide useful. Although the guide may be useful in some high-income countries, it specifically addresses the needs of low- and middle-income countries that may have nascent or emerging special education systems for students with learning disabilities.

This guide offers information and guidance on how to identify students with learning disabilities but does not provide in-depth information or recommendations on how to identify students with low-incidence disabilities or other high-incidence disabilities, such as speech disorders or behavior challenges. This limited focus is not intended to minimize the need to provide effective screening and evaluation practices for other categories of disabilities; rather, the hope is this guide is a more effective, focused resource for learning disabilities and addresses a growing international need.

The guide includes a phased approach for stakeholders to understand the complexities of identification while gradually and responsibly building the foundational structures that are needed to develop and expand an identification process. This phased approach to identifying students with learning

disabilities also applies to identifying students with other types of disabilities; however, the tools used in evaluating other types of disabilities would differ. Figure 1 shows the various stages presented as part of this guide; vision and hearing screening is the first foundational phase. Phase 2 recommends a screening approach for learning disabilities while the final phase, Phase 3, provides suggestions for evaluation.

**Figure 1. Screening and evaluation phases**



This guide is a complementary resource to existing resources and tools for inclusive education that RTI developed: *The School and Classroom Disabilities Inclusion Guide for Low- and Middle-Income Countries* and *The Disabilities Inclusive Education Systems and Policies Guide in Low- and Middle-Income Countries*.<sup>2</sup> Before they review this guide on learning disabilities, readers who are just learning about inclusive education practices will find it beneficial to review these two other foundational guides first.

The *School and Classroom Guide* provides information on differentiating instruction that benefits all students, regardless of whether they have been identified as having a disability. The *School and Classroom Guide* is a useful resource for teachers as they begin to provide services to students with

<sup>1</sup> For the purposes of this guide, families refer to both parents of the child with a disability as well as other caregivers who may assume the primary responsibility for childrearing.

<sup>2</sup> *The School and Classroom Disabilities Inclusion Guide for Low- and Middle-Income Countries* can be retrieved at: <https://doi.org/10.3768/rtipress.2017.op.0031.1701>; *The Disabilities Inclusive Education Systems and Policies Guide in Low- and Middle-Income Countries* can be retrieved at: <https://doi.org/10.3768/rtipress.2017.op.0043.1707>.

learning disabilities without having the systems in place to effectively conduct screenings and evaluations. The *School and Classroom Guide* also introduces basic concepts of Response to Intervention (see page 10) one screening method to identify and address learning challenges.

The *Disabilities Inclusive Education Systems and Policies Guide in Low- and Middle-Income Countries* offers additional information to government representatives and policymakers on systematic interventions and programs that support students with learning disabilities in the classroom.

## Background

### Defining Learning Disabilities and High-Incidence Disabilities

The concept of learning disabilities is thought to have originated in the United States in the 1960s. Learning disability is recognized as one of the 13 categories of disability within the Individuals with Disabilities Education Act (IDEA), the comprehensive education law for individuals with disabilities in the United

States.<sup>3</sup> Although the definition of learning disability has slight variations, the IDEA defines it as a “disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations” (US Department of Education, Office of Special Education Programs [OSEP], 2004). However, many countries have yet to officially recognize learning disabilities. For example, many African countries have no formal local definitions of learning disabilities or high-incidence disability, and students with learning disabilities are typically not recognized in the classroom (Abosi, 2007). Likewise, the Indian government does not formally recognize learning disabilities within its policies or programs (Ahmad, 2015).

<sup>3</sup> The IDEA categories of disability include specific learning disabilities, other health impairments, autism spectrum disorders, emotional disturbances, speech or language impairment, visual impairment—including blindness, deafness, hearing impairment, deaf-blindness, orthopedic impairment, intellectual disability, traumatic brain injury, and multiple disabilities.

**Table 1. Types of learning disability**

Name	Affected Area(s)	Characteristics
Auditory Processing Disorder	Processing or interpretation of sound in the brain	<ul style="list-style-type: none"> <li>• Difficulty making sense of sounds</li> <li>• Problems with blocking out background noise</li> <li>• Trouble telling where sound is coming from</li> </ul>
Dyscalculia	Numbers and mathematics skills	<ul style="list-style-type: none"> <li>• Difficulty learning math facts such as symbols and place value</li> <li>• Problems with counting</li> <li>• Trouble telling time</li> </ul>
Dysgraphia	Fine motor skills and handwriting	<ul style="list-style-type: none"> <li>• Illegible handwriting</li> <li>• Inconsistent use of letters (e.g., lowercase and capital)</li> <li>• Difficulty with spatial planning on paper</li> </ul>
Dyslexia	Reading and language processing skills	<ul style="list-style-type: none"> <li>• Reading slowly</li> <li>• Difficulty decoding words, especially the order of letters</li> <li>• Problems recalling known words</li> </ul>
Language Processing Disorder	Language processing skills	<ul style="list-style-type: none"> <li>• Difficulty understanding meaning of spoken language</li> <li>• Poor reading comprehension</li> <li>• Problems with verbal expression</li> </ul>
Nonverbal Learning Disabilities	Nonverbal skills such as motor, visual-spatial, and social skills	<ul style="list-style-type: none"> <li>• Difficulty interpreting body language or facial expressions</li> <li>• Poor motor coordination</li> <li>• Trouble with multistep instructions</li> </ul>
Visual Perceptual/Visual Motor Deficit	Interpreting visual information or drawing	<ul style="list-style-type: none"> <li>• Mistakes in writing, such as reversing letters</li> <li>• Too-tight grip on pencil or other writing tool</li> <li>• Poor hand/eye coordination</li> </ul>

Source: Learning Disabilities Association of America, 2017; <https://ldaamerica.org/types-of-learning-disabilities/>

Another challenge is that different terminology can be used in different countries to refer to the same conditions. The United States uses *learning disabilities*, Australia and Zimbabwe use *learning disabilities* or *learning difficulties*, while Belgium uses the term *instrumental disabilities*. In some countries, the terminology used for children with disabilities can be highly disparaging and discriminatory. For example, some communities in northern Ghana use terms such as *Zu'kpinglana* and *Zuuku* (deadhead and empty-head, respectively) to describe children who exhibit challenges in learning. This lack of a common definition or understanding of learning disabilities presents challenges in identifying and providing services to students. Throughout this report and all of its work, RTI uses the term *learning disability*.

**Forms of learning disabilities.** Common forms of learning disabilities include those shown in Table 1, as defined by the Learning Disabilities Association of America.

Learning disabilities can vary significantly in severity and how they affect an individual's ability to learn. Teachers may not recognize that multiple types of learning disabilities can occur and may use a one-size-fits-all approach when determining supports for students. From the opposite side of this spectrum, students may have documentation that indicates that they have a learning disability without identifying the specific disability or the area of learning that is impacted. This practice can prevent a student from receiving specialized supports.

**Prevalence estimates.** Estimates for learning disabilities vary depending on the method of data collection, resulting in significantly different prevalence rates even within the same country. For example, a study in Belgaum, India, found that 15 percent of primary school students between the ages of 8 and 11 had some form of learning disability (Mogasale et al., 2012). Another study in Kerala, India, which identified students through local teachers in a different city, estimated that only 2 percent of students had a learning disability (Gafoor, 2015). In the United States, 5 percent of all students in school have been identified as having a specific learning disability, and another 15 percent or more of students are believed to have unidentified

learning and attention difficulties (Cortiella & Horowitz, 2014).

**Identification challenges.** Identifying learning disabilities can be challenging for several reasons. Although some students have obvious low-incidence disabilities such as mobility or sensory disabilities, students with learning disabilities are physically and often behaviorally difficult to distinguish from students without disabilities, particularly outside of school settings (Friend & Bursuck, 2012). Furthermore, not all learning challenges are caused by a learning disability. Students without disabilities may also have academic, emotional, and behavioral difficulties that can result in learning challenges, even without an underlying disability (National Association of Special Education Teachers, n.d.). Other disabilities (such as low vision or hearing difficulties), linguistic or cultural differences, and environmental factors (e.g., poor nutrition or lack of prior formal education) may also cause learning difficulties (Aro & Ahonen, 2011; Fernald et al., 2009; National Joint Committee on Learning Disabilities [NJCLD], 2010). Such factors must be ruled out as causes of learning difficulties during the screening or evaluation process; neglecting to do so may lead to misdiagnosis.

### Dispelling Myths Related to Learning Disabilities

Learning disabilities occur in every culture, race, ethnicity, and socioeconomic status. Common misperceptions about learning disabilities, however, can impact the way in which students are identified and the services they receive. This section helps to dispel some of the more frequently held myths about learning disabilities.

**Myth #1: Persons with learning disabilities are lazy, do not want to learn, and cannot be successful.** Academic challenges caused by a learning disability do not indicate laziness or an inability to learn. With proper accommodations and supports, students with learning disabilities can succeed in school. Supporting these students in school can help lead to further success, as adults with learning disabilities successfully pursue higher education and work in virtually all career fields.



**Myth #2: Persons with learning disabilities are less intelligent.** Having a learning disability does not affect a student's intelligence. In fact, some students with learning disabilities are gifted.<sup>4</sup> Although students with learning disabilities may “appear to be functioning adequately in the classroom, their performance may be far below what they are capable of, given their intellectual ability” (NJCLD, 2011, p. 2). Having a learning disability does not mean that a student does not have the capacity to learn, but rather benefits from learning materials and concepts using alternative methods.

**Myth #3: Learning disabilities can only be identified once a student is fully literate.** Many countries do not provide early identification services for learning disabilities, often because of the misperception that identifying a student with a disability is related to literacy skills. For instance, learning disability evaluation in the Indian city of Bangalore generally takes place during the seventh grade, after a student has experienced years of academic underachievement (Thomas & Whitten, 2012). Although many students are identified as having learning disabilities because they have trouble learning to read, other students with learning disabilities do not display challenges in reading and writing. Therefore, identifying a potential vulnerability or screening for learning disabilities can and should begin before a student learns to read: as early as age 3, children can exhibit signs and indicators of learning disabilities (Lange & Thompson, 2006). Table 2 shows examples of signs of learning disabilities at different ages. Identifying a learning challenge as early as possible is ideal, because early educational interventions are much more likely to yield long-term gains than those implemented at higher grades or in adulthood. Early identification has been tied to positive life outcomes such as higher academic performance, increased likelihood of graduating from secondary school, and decreased likelihood of committing crimes (Heckman & Masterov, 2005).

**Myth #4: People with learning disabilities outgrow them by adulthood.** A learning disability is a lifelong condition (National Institutes of Health, 2017).

<sup>4</sup> Gifted is typically defined as a child with above average intelligence or exceptional talent.

**Table 2. Characteristics of learning disabilities, by age**

Age Group	Characteristics of Possible Learning Disabilities
<b>3–4 years</b>	<ul style="list-style-type: none"> <li>• Problems pronouncing words</li> <li>• Trouble finding the right word</li> <li>• Difficulty rhyming</li> <li>• Trouble learning the alphabet, numbers, colors, shapes, and days of the week</li> <li>• Difficulty following direction or learning routines</li> <li>• Difficulty controlling crayons, pencils, scissors, or coloring within the lines</li> <li>• Trouble with buttons, zippers, snaps, learning to tie shoes</li> </ul>
<b>5–9 years</b>	<ul style="list-style-type: none"> <li>• Trouble learning the connection between letters and sounds</li> <li>• Unable to blend sounds to make words</li> <li>• Confuses basic words when reading</li> <li>• Slow to learn new skills</li> <li>• Consistently misspells words and makes frequent errors</li> <li>• Trouble learning basic math concepts</li> <li>• Difficulty telling time and remembering sequences</li> </ul>
<b>10–13 years</b>	<ul style="list-style-type: none"> <li>• Difficulty with reading comprehension or math skills</li> <li>• Trouble with open-ended questions and word problems</li> <li>• Dislikes reading and writing; avoids reading aloud</li> <li>• Poor handwriting</li> <li>• Poor organizational skills (homework and desk are messy and disorganized)</li> <li>• Trouble following classroom discussions and expressing thoughts aloud</li> <li>• Spells the same word differently in a single document</li> </ul>

Source: HelpGuide.org, Types of Learning Disorders and their Signs, 2017.

Although many adults adopt coping mechanisms and strategies to reduce the impact of their learning disabilities, some continue to struggle with learning difficulties throughout adulthood. Learning disabilities are not usually curable, though many adults select careers that reinforce their strengths rather than positions that may be more challenging due to their learning disability.

**Myth #5. Learning disabilities are caused by a curse or by sin.** In many cultures worldwide, disability is seen as a curse, the result of a sin, or a punishment for doing something wrong (Wa Munyi, 2012). For this reason, many children with disabilities are hidden,

and many families are hesitant to have their child assessed for any form of related disability. In reality, researchers and scientists have documented multiple causes of learning disabilities including structural brain differences, genetics, and environmental causes. In research about structural brain differences, individuals with learning disabilities in reading were found to have neural wiring impairments in the right hemisphere of their brain (Ashkenazi, Black, Abrams, Hoeft, & Menon, 2013). In terms of genetics, studies of twins have documented that two-thirds of reading deficits could be attributed to genetic factors (Astrom, Wadsworth, Olson, Willcutt, & DeFries, 2012). Learning disabilities are not caused by challenges seeing or hearing, emotional disturbance, cultural factors, lack of proficiency in the local language, environment or economic factors, or inadequate instruction (Cortiella & Horowitz, 2014).

**Myth #6. Learning disabilities will impact all people the same way.** Learning disabilities can vary significantly from person to person, even within the same type of learning disability (NJCLD, 2010). For example, one person with dyslexia may struggle significantly with reading while another individual may only have problems reading in certain situations, like reading aloud. Students with other types of disabilities (such as autism, students who are blind or deaf, or students with emotional disturbances) may also have a learning disability (NJCLD, 2010). It is important to address all disabilities that a student may have.

## Screening and Evaluating Learning Disabilities

Identifying a student with a learning disability is a complex and multifaceted process. Unfortunately, many schools and ministries of education have tried to simplify the process, to the detriment of students. When done appropriately, screening and evaluation processes can help identify students who may need additional educational supports to reach their full academic potential. Conversely, when the screening and evaluation of learning disabilities are conducted in a rushed, haphazard manner, or without using international best practices, harmful outcomes can result, such as incorrectly identifying students without disabilities as having learning disabilities, or improperly identifying students who may have learning disabilities. This section of the guide introduces typical signs of learning disabilities, the screening process to identify students with learning needs, and then the steps needed to effectively evaluate a student for a specific disability. This guide focuses on screening and evaluating children in the classroom (typically primary and secondary schools) versus early identification process or other non-classroom-related identification processes. This process can be simplified into the following steps in Figure 2.

**Figure 2. Steps to Identify Additional Learning Needs**





Many experts use different terminology to explain the evaluation process used to determine a specific learning disability. This process can also be referred to as an assessment, and some use these two terms interchangeably. Evaluation and assessment can sometimes be confused with the initial screening process. To distinguish between the two phases, this guide uses the term *screening* to explain the initial process of identifying a possible learning need and *evaluation* for the process of determining a specific learning disability.

## Typical Signs of a Learning Disability

The identification process usually begins when either a family member or a teacher becomes concerned that a student is not making adequate progress in school. Common characteristics of learning disabilities include the following, as described by the Learning Disabilities Association of America (2017):

- Short attention span
- Poor memory
- Difficulty following directions
- Inability to discriminate between/among letters, numerals, or sounds
- Poor reading, writing, and/or math ability
- Eye-hand coordination problems, poor coordination
- Difficulty with sequencing
- Disorganization and other sensory difficulties

These characteristics are found in *all* individuals, regardless of disability, at some time in their development. A person with a learning disability, however, may have more than one of these characteristics (Learning Disabilities Association of America, 2017). Characteristics of a learning disability may also change depending on a student's age and development. Table 2 shows the different characteristics that students with learning disabilities typically exhibit by age. These characteristics may vary slightly based on cultural context. A student's native language must be considered, because many students may have difficulties learning and communicating in their non-native language. Such challenges are not related to a learning disability and should not be considered evidence of one. For instance, a 1989 study found that Berber-speaking

students in Morocco had lower Arabic reading scores than their Arabic-speaking counterparts in their first year of school. However, both groups obtained similar reading scores after 5 years of public education conducted in Arabic (Wagner, Spratt, & Ezzaki, 1989). Therefore, it is critical to consider the role of language and culture in evaluating a student's learning difficulties.

Typically, when a student demonstrates the characteristics of learning disabilities, additional assessments or a comprehensive evaluation is needed to help identify a student's learning challenges and strengths.

## Screening Versus Evaluation

The process of identifying a learning disability can be confusing and appear a bit cumbersome at times. Ideally, learning disabilities are identified through a two-step process: (1) initial screening to determine if a child would benefit from additional educational support and then (2) a more in-depth evaluation to determine if a child has a possible learning disability and, if so, the areas of learning that might be impacted. It is important to note that screening to identify if a student has *additional learning needs* is not the same as *evaluating in order to provide a diagnosis* of a learning disability. Furthermore, access to school should not be dependent on screening or evaluation. Screening and identification should only be used to provide appropriate services and supports to students, not to decide whether or not to admit a student into school.



### All Children Should Have Access to School

For example, some countries, such as Gabon, Macedonia, and Morocco, require that a student suspected of having a disability is diagnosed before enrolling in either inclusive or segregated schools. Conversely, other countries like the United States may not require a diagnosis for school enrollment and admission, but students are required to undergo an evaluation to determine if they are eligible for special education services.

Obtaining a formal diagnosis to access education may cause problems for children and their families. Screenings and evaluations in many countries are conducted in public or private assessment or evaluation centers, which may be prohibitively

expensive for many families. Although many countries require a diagnosis before a child suspected of having a disability can attend school, sometimes this diagnosis is used to mandate attendance in segregated schools or classes. Consequently, many families of children with disabilities do not seek an evaluation for their child because they fear their child will be denied admission to a school on the basis of having a learning disability (Ahmad, 2015). Some countries, such as Costa Rica, are making concerted efforts to move toward a more individualized and needs-based system, instead of a diagnosis-based system (Stough, 2003).

Although a diagnosis may explain the causes of a student's learning difficulties, it does not provide sufficient information about the type of services that a student may need, because learning disabilities may affect individuals differently, even those with the same diagnosis. Instead, each student should be assessed for individual learning strengths and challenges to identify appropriate supports and services. In the United States, comprehensive evaluations are still required, even with a diagnosis, to better understand a student's strengths and weaknesses (Turnbull, Stowe, & Huerta, 2007). Such information can help teachers create an Individualized Education Plan (IEP) for the student, as well as determine what supports the student will need to succeed in school (Parent Center Hub, n.d.).

Screening potential challenges in learning and development are very different from a comprehensive evaluation, which is used to identify specific learning disabilities, other disabilities, and other related challenges. Unfortunately, many countries do not recognize the difference between these two methods and often apply screening procedures to attempt to determine a learning disability. For instance, teachers in Jordan frequently use self-made achievement tests to determine eligibility for learning disabilities support services (Al-Natour, Al-Khamra, & Al-Smadi, 2008) rather than using several tools and engaging a multidisciplinary team. Table 3, on the following page, helps clarify the differences between the two procedures and provides best practices on how and when to conduct the respective approaches.



### Identification Screening vs. Evaluation

Screening a student who might benefit from additional educational support is not the same as conducting an evaluation. These two terms can be simply defined as follows:

- **Screening:** a process *conducted by the school* to determine whether a student might benefit from additional supports or to determine if he or she may have additional academic needs.
- **Evaluation:** a process *conducted by a trained multidisciplinary team* to determine if a student has a learning disability and, if so, to determine the specially designed instruction that will enable the student to make appropriate progress. Thus, evaluations are used to determine the student's specific learning needs and strengths and to qualify students for special education services.

### Engaging Families in the Screening and Evaluation Process

Family engagement is key throughout screening, evaluating, and providing services. Families can be extremely helpful in identifying strategies and approaches for assessment that will work best for their children (Rutland & Hall, 2013). However, for families to effectively contribute to the process, they must be informed and involved in all aspects of screening and evaluation (Boone & Crais, 1999). As countries begin to develop systems to support screenings and evaluations within schools, tools and guidance documents should also be coupled with standards on when and how to best engage families. Partnership with families is key in supporting children with disabilities and ensuring that supports and education conducted in the classroom are supported and reinforced at home. Standards might include the referral process for accessing assistive devices, obtaining family background information for both screenings and evaluations, obtaining parental consent for evaluations, and including families in the IEP process. In countries where biological parents may not commonly be the primary caregivers, expanding parent engagement to include other family members and caregivers (involved in child's upbringing) can be beneficial. Also, the concepts of learning disabilities, screenings, and evaluation may be new for many parents and families, so schools should be sure to thoroughly explain the process and

**Table 3. Screening versus evaluation**

Criterion	Screening	Evaluation
Who can implement?	Screening can be implemented by a teacher or a nontrained professional	Evaluation should be implemented by a multidisciplinary team with at least one individual professionally trained in evaluations
When to implement?	Screening should be implemented upon identifying concerns from family or the teacher, after ruling out vision and hearing challenges	Evaluation should be implemented upon identifying concerns from families or the teacher, after ruling out vision and hearing challenges and after conducting initial screening to determine if a student may benefit from additional educational supports.
What do results inform?	Results of screening inform a teacher if a student may need additional evaluation and if he/she needs additional classroom supports	Results from an evaluation are documented in a comprehensive report and provide information on specific learning disabilities a student may have, if special education services are needed, as well as informing the development of an Individualized Education Plan
What tools are used?	Specific screening tools adapted for language and culture; Response to Intervention, a tiered approach to identify students with disabilities and determine which helpful educational supports should be used	Specific evaluation tools should be adapted for language and culture
When are families engaged?	When the entire classroom of students is screened, parental consent typically is not required; however, local policies on parental consent should be consulted. Parental consent can be desirable in keeping families fully informed.	Parental consent should be required before conducting the evaluation and before receiving special education services. Local policies related to parental consent should be consulted.

discuss the potential role of parents in all stages (Aro & Ahonen, 2011). Given the importance of parental and family engagement, this topic is interwoven throughout the document.

### Elements of Disability Screening

An identification screening—sometimes referred to as a screening assessment—provides general information about a student who may need additional supports, as well as a more in-depth evaluation (Bergeson et al., 2008). Screening is often brief and conducted in a short timeframe. However, screenings can also be done individually when a student is thought to have learning challenges. Screenings can provide additional and initial information about a specific student and possible learning challenges and strengths. Another benefit is that screenings can be administered by individuals who do not have highly specialized training. Some screenings, especially those that are school-wide, typically do not require parental consent in certain countries (National Center for Learning Disabilities, 2006); however, parental consent policies may differ by country, and screeners should adhere to local laws. Parental

consent is a best practice and should be encouraged as much as feasible. Recommendations for screening include the following:

- **Screening should take place as early as possible.**

Learning difficulties can begin to appear as early as age 3. Therefore, screening should take place as early as possible and the child should be routinely rescreened so the child can avoid years of academic difficulty. Teachers should screen, as needed, once a child enters school and then every 2–3 years; teachers should observe the child both in and outside the classroom (e.g., recess), and communicate their concerns with the child's parents or guardian(s) (Aro & Ahonen, 2011). Screenings should include vision and hearing tests to monitor any changes over time, and children with suspected vision or hearing loss should be referred for additional evaluation and services. Families can share relevant information about their child with their teachers (e.g., strengths and interests), as well as their expectations about their child's education (Aro & Ahonen, 2011). Screening can then take place upon the recommendation of a family member or from a teacher.

- **Screening should rule out other potential causes of learning difficulties.** Other potential causes for learning challenges should be ruled out before a student is identified as potentially having a learning disability. It is especially important to rule out hearing and vision challenges before conducting a more comprehensive evaluation. Students with vision or hearing challenges may: (1) require frequent breaks due to fatigue; (2) have difficulty sustaining attention; (3) be unable to finish timed tests; (4) be unable to sit for long periods of time; (5) have difficulty with sitting or balance, maintaining posture, and/or arm-hand use; (6) have trouble answering questions; (7) have difficulty pointing at something or looking someone in the eye; and (8) have challenges communicating effectively (Farrall, Wright, & Wright, 2015). These symptoms can be easily confused with signs of learning disabilities. Because many countries have not implemented routine hearing and vision screening, a teacher or trained individual should conduct the vision and hearing before screening to ensure that a student's learning challenges are not related to low vision or difficulty hearing. Screening should also rule out other factors, such as environment or language, that might impact a student's ability to achieve academic success. Those factors may make a student appear to have a learning disability. Ruling out external factors is especially important in situations where the language spoken in a student's home may not be the same as the language of instruction at school. In fact, some experts do not recommend evaluating students for learning disabilities if their first language differs from the language of instruction. They suggest that evaluations for learning disabilities can only take place once students clearly have a strong written and oral understanding of the primary language of instruction (Dunn & Walker, 2008).
- Aro and Ahonen (2011) suggest the following other factors to consider:
  - Teaching and school-related problems (e.g., number of pupils in the class, education of the teacher, teaching materials, and books)
  - Insufficient nutrition or sleep
  - Health problems



### Response to Intervention

Response to Intervention is a “multi-tier approach to the early identification and support of students with learning and behavior needs” (Response to Intervention [RTI] Action Network, 2017). As part of Tier 1, Response to Intervention is a way to universally screen all students and provide information on “student’s learning rate and level of achievement, both individually and in comparison with the peer group” (RTI Action Network, 2017). Students who do not show progress under Tier 1 (quality general education classroom instruction) progress to Tier 2 (quality general education classroom instruction plus additional in-class intensive supports targeted to the student), which provides more targeted intervention. Those students who continue to struggle with targeted interventions are referred to Tier 3 (the addition of out-of-classroom intensive support and remediation coordinated with in-classroom instruction), which provides more intensive interventions recommended for a full evaluation. Although Response to Intervention is commonly used to screen for learning disabilities, it should not be the only screening tool used. Instead, use a variety of screening methods for both screening and evaluation processes. For more information on Response to Intervention, please refer to *The School and Classroom Disabilities Inclusion Guide for Low- and Middle-Income Countries Guide*.

- Problems in the student’s emotional development and security; the effect of a family member’s emotional problems (e.g., anxiety or depression) on the student
- Violence in the family
- Social/economic problems of the family
- An unsafe learning environment in the classroom or school
- Ambiguous daily routines at home or school, insufficient support

This guide includes a checklist in Appendix A to help lead teachers through factors that should be ruled out before conducting screenings for students with suspected learning disabilities. Key factors and suggestions include the following:

- **Be culturally and linguistically relevant.** Using screening tools that have not been adapted to the local language or culture can lead to misidentification. All screening tools should be adapted to the cultural context and conducted in a student’s native language. Adapting a tool is not the same as simply translating it into the local language.



### Response to Intervention versus Discrepancy Model



In the United States, Response to Intervention is one of the two main methods used to identify a learning disability. This method focuses on a student's ability to respond to intervention and instruction in the classroom setting with the belief if a child still struggles even with intervention, he/she may have a learning disability and be eligible for services. The second method, the Discrepancy model, uses tests to determine if a significant discrepancy or difference exists between an intelligence (IQ) test and academic tests and performance (Marchant, n.d.). In the United States, the Discrepancy model is slowly being abandoned because services and intervention should not wait or be withheld until the student's academic achievements fall to a noticeably low level and show a significant discrepancy (Wright & Wright, 2004). In low- and middle-income countries, an additional challenge with using the discrepancy model is that IQ tests are rarely culturally adapted, and qualified individuals who can correctly administer the test are often not available. For these reasons, this guide promotes the Response to Intervention model to identify a student with a learning disability.

Instead, the tool should be changed to reflect the cultural context of a country. For example, early childhood milestones are often different across countries, as they reflect a country's culture and reality (e.g., catching a ball may be an inappropriate milestone in countries where children do not play with balls or typically have access to playing with balls).

- **Have clear procedures and standards for initiating an evaluation.** Screenings are not a means to themselves. Instead, clear procedures must be in place about actions to take if a student is identified as having additional learning needs and what supports are in place to support that student and the family. In most cases, the next step should be to conduct a comprehensive evaluation.
- **Use multiple tools and sources of information.** The screening process must use several different tools and sources of information (described in more detail later in the guide). Using different tools and sources of information helps increase the accuracy of the evaluation results and helps omit evaluators' potential bias.
- **Don't use screening methods to diagnose a learning disability.** Screening should be used only to

identify the additional need for a full evaluation, not as an attempt to identify a specific learning disability. Identifying a specific learning disability is considerably more complicated and only trained practitioners should do it.

### Elements of Evaluation

An evaluation is a comprehensive procedure conducted by trained professionals (using copious detailed information) who try to identify or diagnose the cause of the student's learning challenges, determine the severity of the disability, and identify targeted interventions. Information obtained through these evaluations should also be used to help develop an IEP and set benchmarks for a student's educational progress. Appendix B in this guide has a checklist to help teachers and professionals consider factors that should be ruled out before evaluations for students with suspected learning disabilities are conducted. Evaluations should:

- **Take place upon completing an initial screening.** As stated before, a general screening must be conducted before a comprehensive evaluation is done because screenings can rule out other factors that may be confused with characteristics of learning disabilities. Evaluations can be time-consuming for all members of the evaluation team, so it is important that there be a suspected need before moving forward.
- **Use multiple evaluation tools and sources of information.** No single tool or score is sufficient to determine whether a student has a learning disability (NJCLD, 2011). Therefore, multiple tools and sources of information must be used to conduct an evaluation; although there is no best practice established on how many tools should be used, at least two tools should be part of an evaluation. The exact number will be determined on a student-by-student basis and in response to the student's individual needs. The US education law for children with disabilities, IDEA, notes that it is inappropriate and unacceptable to base any eligibility on the result of one procedure and that multiple tests and procedures must be performed (Turnbull, Stowe, & Huerta, 2007). Effective evaluations should assess all areas related to a student's suspected disability, including: "health, vision and hearing, social and

emotional status, general intelligence, academic performance, communication abilities, and motor skills” (Farrall, Wright, & Wright, 2015, p. 16). Furthermore, the type of information used to assess a student can include: “background and family history, formal and informal testing, observations in the classroom and other settings, if appropriate; interview with family, teacher(s), and the child; additional testing, depending on the presenting problem and the test findings” (Farrall, Wright, & Wright, 2015, p. 6).

- **Be culturally and linguistically relevant.** All tools must be adapted and standardized to include the local norms for the culture and language in which they will be implemented. Unfortunately, evaluation instruments used to diagnose learning disabilities are often imported using Western norms. This practice “raises ethical issues as a lack of sensitivity to cultural differences can result in misdiagnosis or mislabeling” (Aro & Ahonen, 2011, p. 32). If tools may not have been culturally adapted or are not available, evaluators should develop, adapt, and pilot tools before conducting evaluations. During this time, students can receive additional supports in the classroom without having received a diagnosis.
- **Be conducted by a trained multidisciplinary team.** It is important to have a multidisciplinary team participate in all evaluations to receive a variety of perspectives. Core members of this team should include a student’s parents/caregivers, the general education teacher, and a school special education teacher. Where available, the equivalent of a school psychologist or social worker should also participate. Other experts who might be invited to join the evaluation team include speech therapists, occupational therapists, physical therapists, reading specialists, or others. At least one person on the team should be trained in how to conduct a comprehensive evaluation and be able to lead the process. Another ideal team member is an educational expert who is familiar with the student’s ethnic and linguistic culture, if needed. In many instances, either a school administrator or someone from the district or regional offices within the ministry of education will also participate in the evaluation. The team may suspect that a

student has a specific learning disability, but only a trained clinical psychologist, school psychologist, educational psychologist, or neuropsychologist should make the diagnosis (Ross Kidder, 2002). If these trained personnel are not available within a country, a student with suspected learning disabilities should not get an actual diagnosis but instead should get additional support. In this way, the student will receive, at minimum, needed learning supports while the chances of misdiagnosing or inappropriately labeling him/her are reduced. Countries should at the same time work to build the capacity of personnel within the country to quickly fill the professional gap.

“An evaluation is only as good as the evaluator.” (Farrall, Wright, & Wright, 2015, p. 8)

- **Be conducted over an extended period.** In addition to getting different sources of information about a student, gathering information at different times over a reasonable amount of time is important—perhaps 1 to 2 weeks. Collecting data over multiple days and times will increase the accuracy of the findings. For example, if a student is not feeling well on a certain day, or if the testing always happens before lunch when a student might be hungry, these factors could impact the data results. Conversely, an evaluation should not take place over too long a time span because results and services for the student could be unnecessarily delayed. For example, the US law IDEA requires that all evaluations be completed within 60 days of families providing written consent.
- **Engage families.** A growing body of evidence shows that family engagement in general, but especially related to special education services, is a key component of a student’s academic success (Family Empowerment and Disability Council, 2012). Engaging families in the evaluation process is an important factor to ensure that the evaluation is relevant and can serve as a foundation to support a student. Families should: (1) be informed about why the evaluation is being suggested, (2) provide their consent to have their child evaluated, (3) be involved in the evaluation process to provide important family and historical background, and



(4) be fully informed of the evaluation results with a copy of the final report. The consent component of the evaluation procedure is fundamental because it ensures that families are fully aware of the reasons an evaluation is being conducted and allows them to be a part of the process moving forward. Families should be invited and encouraged to participate throughout the evaluation process. Engaging families can include (1) allowing them to receive important information about their children's strengths and needs, (2) providing important and relevant historical information, (3) assisting in the selection of the appropriate evaluation tools and (4) allowing them to advocate for school services for their children (Hall, Rutland & Grisham-Brown, 2011).

- **Include a system for consent.** Consenting to having a student evaluated is different from consenting to receive special education services. If special education services are deemed necessary because of the evaluation, a different consent process should be established. All communication, including oral and written consent mechanisms, must be in the family's native language to ensure they fully understand what is being proposed.
- **Have clear procedures and standards related to referrals.** The goal of evaluation is to assess a student's challenges and academic strengths to develop support systems that address those challenges and build upon the strengths. Thus, a system should be in place to support a student's educational needs before the evaluation is conducted. Clear procedures and processes for referrals and supports should be operationalized as soon as a student is approved to receive services.<sup>5</sup> If the evaluation determines that a student has a learning disability and would benefit from special education services, the multidisciplinary team that conducted the evaluation should provide details about recommended services. These services should be individualized and reflect the student's strengths and academic challenges. Parents or guardians and,

whenever possible, students themselves should participate in all service-related discussions.

- **Record results of evaluation in a comprehensive report.** Information obtained through the evaluation should be recorded in a comprehensive report. The audience is the student's families, but a copy of the report should also be placed in the student's file as a resource for the student's current and future teachers. Typically, the individual leading the evaluation serves as the primary writer of the report but receives contributions and input from other members of the multidisciplinary team. This report should indicate both strengths and challenges that impact the student's academic success. Also, this report should include recommendations for services and additional supports for future IEPs. Because this report should be made available to families, technical jargon or information that might be confusing should be avoided. Reports should be comprehensive and concise, and should present the information in an organized manner. The report should be presented to the families in person to guide them through the findings and recommendations and allow an in-person discussion. Often, the report is shared with the families before the meeting to allow a more informed and robust discussion.
- **Reevaluate on a recurring and consistent basis.** Because the needs of students with learning disabilities may change over time, periodic reevaluations must be conducted to ensure that the supports and services are still appropriate and meet the respective student's needs. Although reevaluations typically occur every 3 years, some educational systems allow for reevaluations as needed within this 3-year period. Just as in the evaluation process, the Ministry of Education should develop the standards related to periodic reevaluations.

### Challenges Related to Screenings and Evaluations

Identifying students with learning disabilities has clear benefits, such as gaining access to services, getting reasonable accommodations, and developing an IEP. However, a few associated challenges must be considered including the following:

<sup>5</sup> In the United States, the term *referral* is used when recommending an evaluation. In most low-and-middle income countries, referral is used to describe recommendations for services and assistive devices. In this document, referral is used to reflect the meaning used in most low-and-middle income countries.

- **Lack of qualified professionals.** Special education and related services are just emerging in many countries. Although trained special education professionals may provide support in inclusive schools in low- and middle-income countries, trained school-level professionals in speech-language pathology, occupational therapy, and psychology are rare. Furthermore, even when these professionals exist and are available to a school system, they may not be trained in screening or evaluation practices. For example, in Namibia, there is no mandate to use multidisciplinary teams to screen or evaluate a student for learning disabilities. Rather, the principal and school counselor call the parents to discuss their child's academic progress and behavior; no formal process is in place to identify a student's learning needs or process to inform eligibility for special education services (Aro & Ahonen, 2011).
- **Lack of tools and guides adapted to local language and culture.** According to one study that surveyed educational testing specialists from 44 countries, 85 percent stated they need access to tests that identify and diagnose students with disabilities. The specialists identified testing for learning disabilities as the most critical need. Tools are most likely to be developed in Australia, Canada, Western Europe, or the United States, and least likely to be developed in African or Arab countries. Although tools are readily available, "their availability and use differ considerably among more than 220 countries" (Oakland, 2009, p. 2). In this same study, 68 percent of respondents said they used tests developed in other countries to assess disabilities.

The use of Western tests to screen or diagnose learning disabilities in low- and middle-income countries is ethically questionable (Oakland, 2009). Such tests are often neither adapted to a local population sample (Aro & Ahonen, 2011) nor translated into local languages (Oakland, 2009). Some features of the instruments may also be culturally inappropriate for other countries. For instance, non-Western cultures may have expectations of when children should reach certain developmental milestones that differ from those in Western cultures (Fernald et al., 2009). Failure to adapt Western-made instruments to the student's

country, language, and culture can lead to an elevated risk of misidentification and misdiagnosis (Oakland, 2009). Countries without adapted tools should work to make tools culturally relevant for their respective countries and pilot test the tools before encouraging their use.

- **Lack of evaluation standards.** In addition to the lack of adapted tools and guides, standards and guidelines for the general screening and evaluation process are often absent. Many countries have yet to develop standards or protocols for using multidisciplinary teams, testing adaptation, family engagement, and referral to services. Without these standardized practices in place, the screening or evaluation process can vary significantly by region or even by schools, without any agreed-upon processes to promote validity, accountability, or consistency. For example, in Jordan, no standardized practices or tools are in place to identify students with learning disabilities in the classroom. As a result, most special education eligibility evaluations rely on teacher-made tests of achievement (Al-Natour, Al-Khamra, & Al-Smadi, 2008). Because these tests are often developed by individuals without knowledge or expertise in learning disabilities, the accuracy and validity of such tests are unknown.
- **Possible misclassification or misdiagnosis.** In the United States, The National Joint Committee on Learning Disabilities "believes that inappropriate diagnostic practices and procedures have contributed to misclassification of individuals and questionable incidence rates of learning disabilities" (NJCLD, 1994, p. 1). Misclassification and misdiagnosis can manifest in two ways:
  - *Overrepresentation* of individuals who do not have learning disabilities but may have other related challenges in areas such as speech processing or behavior. Evaluation tools that do not take language or cultural diversity into account can also cause overrepresentation.
  - *Underrepresentation* of individuals who may have challenges from a learning disability, but are not recognized as having a disability (NJCLD, 1994, p. 1).

One example of overrepresentation is in Macedonia. While the Roma only account for 2.66 percent of the population, Romani students represent 46 percent of the special education population. Roma students are especially disproportionately represented in schools and classes for learning disabilities. This misclassification can be caused by evaluation processes that do not account for linguistic diversity and contain social bias (European Roma Rights Center, 2012, p. 17). This issue has also been a challenge in the United States where individuals who are learning English as a second language have been misidentified as having a learning disability. Before a learning disability evaluation is conducted, evaluators and other professionals must ensure that the student being assessed has a strong understanding of the language that is used in the classroom (both written and oral) (Dunn & Walker, 2008). Conversely, poor evaluation processes can mean that students are not identified and, therefore, do not receive services. For example, in Kenya, students who are poor are less likely to be identified as having a disability. Students with disabilities are often under-identified because screening and evaluations only take place at assessment or evaluation centers, and the costs of traveling to assessment or evaluation centers are prohibitively high for many low-income families (Mukria & Korir, 2006).

### Labeling

Although knowing a student's specific learning disability is helpful to provide the appropriate services and support, students can also be harmfully labeled. As UNICEF stated, "there are dangers in 'labeling' children according to their diagnosis as it can lead to lower expectations and denial of needed services, and overshadow the child's individuality and evolving capacities" (World Health Organization [WHO] and United Nations Children's Fund [UNICEF], 2012). Labeling a student as having a disability can also lead to increased stigmatization, peer rejection, lower self-esteem, and limited opportunities (Florian et al., 2006). Because of these potential risks, evaluations should be purposeful and lead to services and supports that will improve each student's educational experience. As stated in the *RTI Disability Inclusive Education Systems and Policies in Low-and Middle-*

*Income Countries*, "to mitigate potential prejudicial labeling, all identification systems should be coupled with disability awareness programs to help administrators, teachers, students, and parents better understand and fully accept diversity and disability" (Hayes & Bulat, 2017, p. 36).

### Segregated Settings

**Pull-Out Model.** It is important to realize that special education is a service, not a setting. In many countries, special education services are provided in settings outside the general education classroom, such as in segregated classrooms and specialized schools. The assumption underlying this model is that students with disabilities require a space outside the general education classroom in which they can receive individualized or group instruction. In this "pull-out model," a special education teacher pulls a student out of a general education class to receive instruction. Although this system can give students individualized instruction and support, the process may increase stigma and negatively impact a student's self-esteem (Barton, 2016). Most importantly, the pull-out model removes and reduces a student's exposure to teacher instruction in the general education setting, so the already-struggling student often misses core components of the curriculum. The pull-out model can result in increased academic gaps between students with disabilities and students without disabilities (Bouck, 2006). If a full evaluation team decides that individualized instruction outside the classroom is necessary, it is important that the student is not pulled out during instructional time or during the student's preferred activities (such as recess or art time).



Segregated classrooms that only support students with disabilities are typically referred to as resource rooms (if students spend a portion of the day) and special classes (if students spend the whole school day).

**Push-In Model.** Recently, more countries have adopted a "push-in" model of special education. In this model, students with disabilities receive special education services in the general education classroom and are instructed alongside their peers who do not have disabilities. The special education teacher and general education teacher work together to ensure

that students are “receiving full access to the general education curriculum while limiting any disruption to their daily schedule (such as pulling students out of a classroom). This model also includes the implementation of specially designed modifications within the classroom setting” (Professional Learning Board, 2017). Researchers found that students with disabilities make more progress in the push-in model than in the pull-out model. In fact, the amount of time a student with a disability spends in the general education classroom is positively correlated with higher test scores in math and reading, less disruptive behavior, and increased future employment opportunities. This result was found in all students with disabilities, regardless of type of disability or its severity (Wagner et al., 2006). In the push-in model, resource room or special education teachers can serve as support, advisors, and mentors for general education teachers and act as co-teachers using differentiated learning techniques that will benefit students with disabilities. The resource room teacher can still provide individualized instruction to the student, but it is typically done in a small group in the general education classroom.

Many countries rely on the pull-out model while working to expand resource rooms. For instance, Chinese law requires primary schools to establish resource rooms if they have either adequate funding or a certain population of students with disabilities, and the government has greatly expanded the number of such settings over the past two decades (Xiaoli & Olli-Pekka, 2015). The problem with this model is that it can be expensive because it requires additional classroom space and equipment. Countries may want to consider the push-in method, and use the pull-out method only when individualized and intensive instruction outside of the general education classroom has proven successful for individual students.

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## Screening and Evaluation Methods and Tools

No single method or tool can provide sufficient information about a student’s strengths and weaknesses and educational needs. Data for both screening and evaluation should be collected through

different methods or ways to gather information, and teachers should use a variety of screening and evaluation tools. This section helps clarify the different ways a teacher can collect data to be used for screening and provides additional information on the types of tools and their use.

### Screening and Evaluation Information Sources

For both screening and evaluation, professionals must collect as much information as needed and appropriate to assess (1) a student’s possible educational needs, and (2) which instructional strategies can be immediately implemented. They should collect information about the following.

- **Family background.** Obtaining family background and history can help determine if a student has struggled since birth and if other factors at home might influence the student’s current school performance. Meetings with families should be conducted constructively and collaboratively to avoid the risk of blaming parents for a student’s possible struggles in the classroom. Also, for the information to be meaningful, these discussions and interactions should be conducted in the family’s native language to ensure that families can fully express themselves and that school staff can understand them.
- **Observation.** Observations allow teachers to better understand how a student behaves in different circumstances and settings. For observations to be effective, they should be conducted over time and at different times throughout the day. Also, observations should be made in multiple contexts and settings such as under different types of instruction and in informal settings at school; these contexts can provide information about how a student’s behavior may differ in each setting. The person conducting the observation must be as unobtrusive as possible when collecting data. Furthermore, other students in the classroom should never be told that a specific student is being observed; such a statement could increase stigmatization. Whenever possible, observers should use a standardized checklist and include a way to record the information in a report shared with parents or other members of the multidisciplinary team.

- **Review of past exams and assignments.** Reviewing past work and exams can be useful in assessing a student's possible educational needs and challenges. This process can show if any academic trends or challenges were evident over a certain timeframe. For example, if a student only began having challenges in reading, writing, or mathematics at a certain time but did well previously, this timing might indicate that other factors besides a learning disability should be considered. Reviewing past work can help measure a student's academic progress and compare growth to an expected rate of progress (Overton, 2012).
- **Formal testing and tools.** In addition to the methods listed above, using formalized screening and evaluation tools may be helpful to determine a challenge in a particular area such as reading, writing, or mathematics. Too often, teachers may depend on these tools without using other methods of collecting information, however, which can lead to misleading information. Also, it is important to develop standards related to tool usage, the translation of tools into local languages, and the proposed process for adapting tools to the local cultural context.

### Screenings and Evaluation Tools

Several types of formal tools and resources are available for screening and evaluating learning disabilities; suggested tools are described below. Appendix C provides more detailed guidance about types of assessments and their use in various contexts. Appendices D and E provide guidance on things that teachers can do in their classrooms to identify students who may have vision or hearing challenges (Appendix D and Appendix E, respectively). Appendix F provides a sample protocol for follow up and referral.

- **Vision and hearing screening tools.** Vision and hearing should be screened regularly, in collaboration with the Ministry of Health. These screenings should identify any challenges related to a student's ability to see items both close up and in the distance, as well as the student's ability to hear different tones at different frequencies. Vision testing should also include a functional vision

assessment that may capture challenges (such as eye movement and challenges with night vision) not addressed through screening only. Vision and hearing screenings can be conducted at low cost and teachers can administer them. Hearing tests can be administered through an app on a tablet or smartphone along with quality headphones.<sup>6</sup> For vision tests, the tools should be relevant to the country's cultural context and use symbols rather than letters because a student may not be literate yet or may have challenges naming letters. Ideally, screenings should be coupled with referrals for further evaluation and services, such as glasses or hearing aids.



#### Vision Screening Tools

Perkins International has developed online guidance that provides advice on how to conduct a screening as well as a functional vision assessment to determine vision challenges. This tool provides sample checklists for functional vision assessment and recommendations for vision tools. The website can be accessed at <http://www.perkinselearning.org/scout/functional-vision-assessmentfva#Functional%20Vision%20Assessment:%20Introduction>

- **Speech and language assessment tools for evaluation.** Speech disorders may affect a student's ability to accurately produce sounds or articulate words (American Speech-Language-Hearing Association, n.d.). Language disorders can affect expressive language (the ability to orally express ideas, thoughts, and feelings) or receptive language (the ability to understand oral communication). Although students with speech and language disorders may also have learning disabilities, any communication challenges must be ruled out before testing for learning disabilities. Furthermore, speech and language problems combined with social skills problems may be—but are not always—an indication of autism. Similar to learning disabilities, speech and language disabilities are also considered to be high-incidence disabilities. In the United States, approximately 5 percent of all elementary students have some form of speech or language disorder (National Institute on Deafness and Other Communication Disorders, 2016).

<sup>6</sup> Several hearing tests are available online.

Trained speech therapists typically administer assessments for potential speech and language disorders. However, because many countries lack trained speech therapists, implementing these tools and evaluations may not be feasible.

- **Intelligence assessment tools for evaluation.**

Intelligence tests have traditionally been an important component of learning disability evaluation, particularly when used to measure a discrepancy between a student's intelligence and academic achievement. However, in the United States and other high-income countries, the use of intelligence tests in learning disability evaluation has grown increasingly controversial over the past few decades. For instance, such tests may be biased against students from low-income families and culturally/linguistically diverse backgrounds (Connecticut State Department of Education, 2010). Therefore, intelligence tests should not be considered the primary criterion for determining the presence of a learning disability.

- **Reading assessment tools for evaluation.** Students' ability to read at the same level as their peers may be assessed in several ways. Reading assessments can also provide important baseline information to help gauge a student's progress and performance while also informing teachers how to develop appropriate lessons and improve instruction (Rhodes & Shanklin, 1993).

- **Writing and spelling assessment tools for evaluation.** As in reading, gauging a student's potential difficulties in writing and spelling is also important. Writing difficulties may manifest differently per student. For example, some students may struggle to express their thoughts in writing, while other students' challenges with handwriting hinder expressing what they want to say. Furthermore, spelling is an "[i]mportant component of written expression" and challenges in spelling often indicate a more pervasive learning disability (Farrall, Wright, & Wright, 2015, p. 65).

- **Mathematics assessment tools for evaluation.** In the past within the United States, most evaluations for learning disabilities relied primarily on reading tests. However, assessing a student for difficulties in mathematics is just as critical as assessing reading or writing difficulties. Mathematics assessments

can reveal information about a student's skills in understanding numbers and quantities, writing numbers, producing basic calculations from memory, and mastering basic calculation operations (Aro & Ahonen, 2011).

- **Motor skills assessments tools for evaluation.** Because motor skills challenges can adversely affect a student's performance in school (e.g., difficulty with handwriting), evaluations is necessary to determine if these skills are the primary cause of a student's learning difficulties rather than a learning disability (Connecticut State Department of Education, 2010). Such challenges may be indicative of disabilities such as cerebral palsy. In addition to determining whether a student has a motor disability, these evaluations can also identify whether the disability occurs while planning or performing a given activity (Aro & Ahonen, 2011).
- **Functional behavior assessments (FBA).** An FBA is used to identify the causes, or triggers, of a student's behavior that is interfering with learning. An FBA analysis includes:

- The setting in which the behavior took place (the time of day, the location, etc.)
- The antecedent (what happened directly before the behavior)
- The aspects of the behavior itself (what does the student do that is interfering with their education)
- The consequence (what happens after the behavior, and how do the people around the student respond to the behavior)

Behavior analysts who are trained to analyze behavior typically administer FBAs.<sup>7</sup> Along with this assessment, analysts should consult with the student's teachers, families, and others who might be able to give meaningful insight about why the behavior is occurring. For many countries, conducting FBA may be challenging to conduct now but could be a future goal.

<sup>7</sup> FBA can be a useful tool for the teacher in the classroom and modified FBA could be implemented in most classroom settings. To obtain more information, visit the following websites on conducting an FBA . Examples of resources include: <https://www.understood.org/en/school-learning/evaluations/evaluation-basics/functional-assessment-what-it-is-and-how-it-works> and <http://www.behavioradvisor.com/>

## Phased Approach to Screening and Evaluating Students at the School Level

Increasingly, low- and middle-income countries are seeking ways to identify and support students with learning disabilities in the classroom. However, given the complexities of screening and evaluation, countries do not always know where they should start or focus their limited resources. Some countries may have some systems already in place, but perhaps do not have all supports needed to conduct effective screenings and evaluations aligned with international best practice. This sporadic availability of supports may inadvertently lead to misdiagnosis of learning disabilities and keep students from receiving the supports they need to be academically successful. For example, some countries may use screening techniques to conduct an evaluation for a learning disability or may use only one type of evaluation tool not adapted or normed to the local context. Likewise, often only one person at the school may be responsible for conducting an evaluation instead of a multidisciplinary team. These practices may result in data that do not reflect a student's academic challenges and needs accurately. Recognizing the challenge of incomplete screening and evaluation systems, this guide offers a phased approach for countries to help them identify current levels of service availability, as well as possible gaps in services, and provides suggestions on how to prioritize and grow services.

The core elements of this phased approach can be defined as follows:

- **Phase 1: Nascent Screening and Differentiated Instruction.** In this phase, countries or educational systems may have some, but not all, systems in place to identify students with learning disabilities effectively. Countries in this phase should focus on conducting effective vision and hearing screening techniques in the classroom while simultaneously developing the systems needed to screen for other challenges in academic instruction. During this phase, teachers should focus on diversifying instruction to differentiate learning, if they have not done so already.
- **Phase 2: Emerging Screening and Individualized Instruction.** In this phase, all students routinely receive vision and hearing screenings and a system is also in place to assess and rule out other challenges (such as medical or environmental factors) to academic instruction. Systems required to conduct evaluations can be developed. As these supports are put in place, teachers can provide more fully differentiated instructions, support intensive instructional strategies, begin to develop IEPs, and provide reasonable accommodations.
- **Phase 3: Established Systems and Support.** In this phase, the systems, standards, and tools are in place to provide comprehensive screening and evaluation services that can be implemented in the school setting. In this phase, teachers should provide individualized learning supports in the classroom. Systems established for screening and evaluations should be monitored and updated as needed.

Table 4, on the following page, summarizes the phases of this suggested approach and suggests what schools and systems can work and focus on during each respective phase.

### The Purpose of Phased Approach

A phased approach: (1) helps governments understand the systems that they currently have in place, (2) identifies gaps in tools, services, and training that might need to be filled, and (3) provides a roadmap for future work. Governments and school staff are encouraged to use the self-assessment tool (provided in Appendix G) to assess what services they currently have in place and whether these systems are sufficient to begin screening or evaluating for learning disabilities. Appendix H provides definitions of key terms to help understand this approach. This guide also helps governments identify what supports may still need to be developed as they strengthen or expand existing supports, before attempting to screen or evaluate students for learning disabilities. Ideally, this phased approach will reduce misdiagnosis of learning disabilities, which is a possible outcome if screenings and evaluations are attempted without all the systems and services in place.

This approach also gives school staff strategies they can use to adapt teaching techniques to support

**Table 4. Overview of phases for identifying students with learning disabilities**

Phases of Screening and Evaluation	Characteristics of the Phase	Recommended Response to Improve the System	Recommended Response for Schools
<b>Phase 1: Nascent Screening and Differentiated Instruction</b>	<p>In this phase, characteristics may include:</p> <ul style="list-style-type: none"> <li>Limited tools, guidance, standards, and systems available to screen for learning and evaluate students for learning disabilities</li> <li>Poor/limited understanding among all teachers in understanding learning disabilities and how to support students' needs in the classroom</li> <li>Limited experts available at the classroom level to support teachers in screening and evaluation processes</li> </ul>	<p>In this phase, Ministry of Education officials and school leadership may want to focus on:</p> <ul style="list-style-type: none"> <li>Conducting hearing and vision screenings and ruling out environmental factors for learning challenges</li> <li>Developing standards, tools, and systems needed to conduct effective academic instruction-based screenings for students using Response to Intervention</li> <li>Training all teachers on the existence of learning disabilities, how to begin to differentiate learning, how to conduct initial screening, and the role of Individualized Education Plans (IEPs)</li> <li>Educating families on how to support children with disabilities</li> </ul>	<p>In this phase teachers may want to focus on:</p> <ul style="list-style-type: none"> <li>Using the RTI School and Classroom Guide to begin to differentiate instruction in the classroom</li> </ul>
<b>Phase 2: Emerging Screening and Individualized Instruction</b>	<p>In this phase, the characteristics may include:</p> <ul style="list-style-type: none"> <li>Some tools, guidance, standards, and systems available to screen for learning and evaluate students for learning disabilities, but not universally implemented within schools</li> <li>Some understanding among all teachers, school staff, and families related to learning disabilities but less understanding of how to support a student's needs in the classroom</li> <li>A few experts available at the classroom level to support teachers in screening and evaluation processes but often not a part of a multidisciplinary team for evaluations</li> </ul>	<p>In addition to recommendations for Phase 1, in this phase the Ministry of Education and school leadership may want to focus on:</p> <ul style="list-style-type: none"> <li>Developing standards, tools, and systems needed to conduct comprehensive evaluations and gain family consent</li> <li>Providing reasonable accommodations for the classroom and testing</li> <li>Training specialists and key members of multidisciplinary teams to ensure they can conduct effective evaluations; allowing itinerant specialist support to fill gaps within schools</li> </ul>	<p>In addition to recommendations for Phases 1, in this phase teachers may want to focus on:</p> <ul style="list-style-type: none"> <li>Conducting academic instruction screening to identify students with additional learning needs</li> <li>Implementing Tier 2 of Response to Intervention to support students who may have additional educational needs</li> <li>Providing individualized learning to address a student's specific needs and adapt materials as needed through effective IEP development that monitors student's growth and progress</li> </ul>
<b>Phase 3: Established Systems and Support</b>	<p>In this phase, the characteristics may include:</p> <ul style="list-style-type: none"> <li>Readily available tools, guidance, standards, and systems available for screening and evaluating students for learning disabilities</li> <li>The majority of teachers and school staff have knowledge of learning disabilities and how to support students' needs in the classroom</li> <li>Experts and specialists available at the classroom level to support teachers in screening and evaluation processes</li> </ul>	<p>In addition to recommendations for Phases 1 and 2, the Ministry of Education and school leadership may want to focus on:</p> <ul style="list-style-type: none"> <li>Reevaluating and standardizing tools for both screening and evaluations to make sure they are culturally relevant and appropriately normed</li> <li>Developing or strengthening policies to support screening and evaluation practices</li> <li>Addressing how to continually improve teacher knowledge of learning disabilities and differentiated classroom instruction</li> </ul>	<p>In addition to recommendations for Phases 1 and 2, in this phase teachers may want to focus on:</p> <ul style="list-style-type: none"> <li>Conducting evaluation for students identified as having additional learning needs</li> <li>Ensuring that appropriate tests are being provided to students to gauge their progress accurately</li> <li>Continuing to engage families throughout all processes related to screening and evaluation</li> </ul>



students with disabilities throughout all phases. A diagnosis is not a prerequisite to receiving education in the general classroom, so teachers should be prepared to support students with learning disabilities throughout all phases, whether they have been identified yet or not. These services should evolve and become more individualized as the foundations to support students with learning disabilities are established in the country. For example, in Phase 1 systems can focus on how to support students with disabilities in the classroom even if they have not yet been identified. Phase 3 assumes that the systems are in place to conduct evaluations, and thus teachers can begin to provide individualized instruction using IEPs to guide their instructional approach. Figure 2 shows the hierarchy of screening and evaluation for the different phases and how learning instruction might also evolve over time.

Although the best approach is that governments establish structured processes to screen and evaluate, the phased approach to screening and evaluation offers a flexible way to support students when such processes do not yet exist.

### Recommended Response to Improve Systems Throughout the Phases

Governments must responsibly and thoughtfully grow and expand systems that facilitate screenings and evaluations for students with disabilities. Though countries may have some components of different phases already in place, unless all components of Phase 1 are established, an education system should not move forward with Phase 2. This recommendation also applies to moving from Phase 2 to Phase 3. This model ensures that the required foundation is established before moving to the next phases. This phased approach provides countries with recommended starting points and possible goals, as described below.

**Systems supports for Phase 1.** Phase 1 is the foundation needed to develop screening for all students with disabilities. Recommendations for Phase 1 include:

- **Conduct hearing and vision screenings.** Although some disabilities, such as learning disabilities, may require ongoing accommodations and support, some hearing and vision disabilities may only need

one-time structural or individual accommodations. If hearing and vision screenings are available, they should be given to all students. Students identified as having hearing and vision disabilities can be given assistive devices such as hearing aids or glasses or medical treatment if necessary (many hearing and vision challenges are caused by infections that can be treated medically). Teachers can also make structural accommodations, such as seating students with visual disabilities closest to where instruction takes place. Students with severe hearing loss may benefit from learning local sign language and receiving supports from deaf education experts.

- **Develop the standards, tools, and systems needed to conduct effective academic instruction screenings for students with disabilities.** Without standards, misdiagnosis is a risk, resulting in failure to give students appropriate supports. Thus, educational systems must have standards for the tools and informed protocols that help teachers and school staff understand the steps they need to take to conduct screenings. Standards at this phase should focus on hearing and vision screening tools and their related protocols, how to implement other methods to conduct basic screening for other possible causes of learning challenges (including checklists and ways to engage families), and how to use information gathered in screening to inform IEPs. Once established, these standards pave the way for widespread use of the practices detailed in Phase 2.
- **Train all teachers on the existence of learning disabilities and how to differentiate learning, screen for disabilities, and develop an IEP.** Trained teachers are crucial to ensuring the academic success of students with learning disabilities. All general education teachers will undoubtedly have a student with a learning disability in their classrooms at some point in their careers—including students who perform ahead of their age group, students who perform as expected, or students who perform below expectations for their age in certain areas. Teachers should be trained in how to differentiate learning so that all students can reach their full academic potential. Teachers who do not have the training

or experience to differentiate or adapt instruction may be inadvertently excluding some students from active participation in the learning environment (Alhassan & Abosi, 2014). Teachers should begin to learn how to use Tier 1 of Response to Intervention to assess whether students may have additional educational needs. Furthermore, special education teachers should have basic knowledge of how to conduct screenings and support the development of an IEP in collaboration with the general education teacher. Ideally, a system would include this information in both required preservice coursework and in-service trainings.

- **Educate families on disabilities and the benefits of inclusive education.** During this initial phase, all families should receive training and information on disabilities. Families should be informed about learning disabilities as well as relevant policies within the country. Families should learn about their child's educational rights and how to be engaged in their child's school experience.

**Systems supports for Phase 2.** Building upon the systems already in place in Phase 1, Phase 2 begins to more fully implement basic screenings to determine additional learning needs for students. Phase 2 also focuses on developing educational systems to allow a multidisciplinary team to begin conducting evaluations and implement fuller differentiated learning interventions. Recommendations for Phase 2 include:

- **Develop the standards, tools, and systems needed to conduct evaluations.** Once vision and hearing screenings are conducted and standards for academic instruction screenings are in place and implemented, similar standards should be developed for conducting evaluations. Standards should (1) clearly outline the members of the multidisciplinary team, (2) describe which tools are acceptable within different contexts, (3) detail how and when to engage families throughout the evaluation process as part of the evaluation team, (4) provide information on where individuals can go to receive additional support or tools, and (5) ensure that evaluation leads directly to

improved and more individualized instruction. Evaluations should be connected to instruction and used to plan specially designed instruction, not only to diagnose a disability. Families and DPOs should be engaged in the development of standards, tools, and systems.

- **Provide reasonable accommodations for students with disabilities.** Having a system in place for reasonable accommodations is very important for all students with disabilities, including those with learning disabilities. The CRPD defines reasonable accommodations in Article 2 as “the necessary and appropriate modification and adjustments, not imposing a disproportionate or undue burden where needed in a particular case to ensure to persons with disabilities the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms” (CRPD, Article 2). Although accommodations are intended “to reduce or even eliminate a student's disability,” they do not reduce learning expectations or provide students with unfair advantages (Thompson et al., 2005). Students' requirements for reasonable accommodations may shift as they age and encounter different academic challenges. Policies or standards should allow reasonable accommodations to be individualized specifically for each student, as opposed to developing a system that provides a “one size fits all” approach. For example, some students may need additional time to complete tests, while others do not, and the amount of additional time needed can vary by student. Therefore, accommodations should be based on each student's needs. Table 5 provides additional suggestions on what to do and not to do when providing reasonable accommodations. As specific learning disabilities are “unique to the individual and can be manifested in a variety of ways,” accommodations should also be tailored and individualized to a particular student (University of Washington, Disabilities, Opportunities, Internetworking, and Technology [DO-IT], 2017). Examples of reasonable accommodations given to students with learning disabilities include:

**Table 5. Dos and don'ts when selecting/providing reasonable accommodations**

Dos	Don'ts
Make accommodation decisions based on individualized needs	Make accommodation decisions based on what is the easiest to do or assume that one size fits all students' needs
Select accommodations that reduce the effect of the disability as much as possible to facilitate access to instruction and allow the student to demonstrate learning	Select accommodations unrelated to documented student learning needs or intended to give students an unfair advantage
Document instructional and testing accommodations in an Individualized Education Plan (IEP)	Use instructional and testing accommodations that are not based upon and documented in an IEP
Provide specifics about the "where, when, who, and how" of providing accommodations	Simply indicate accommodations will be provided "as appropriate" or "as necessary"
Reevaluate accommodations and how students are using them	Assume the same accommodations remain appropriate year after year

Source: Adapted from Thompson, Morse, Sharpe, & Hall (2005, p. 43).

- Providing additional time for testing, including standardized tests
- Completing tests orally
- Using a calculator or computer for exams or homework
- Providing materials in large print
- Allowing students to use peer notetakers
- Providing tape recordings of lectures
- Providing visual aids or visual schedules
- Allowing for additional time for in-class assignments, especially writing assignments
- Allowing for frequent breaks
- Allowing for exams to be taken in a space with minimal distractions
- Administering tests at a specific time of day when a student is more likely to have better concentration
- **Train specialists and key members of multidisciplinary teams to ensure they can conduct effective evaluations.** Every school should have staff members who are knowledgeable in leading screenings and evaluations and who can develop evaluation reports. If having these trained staff in all schools is not feasible, ministries of education may want to consider developing itinerant specialists who can join teams as needed while building the capacity of school personnel. These specialists should be aware of all government standards related to evaluations and serve as

leaders throughout the process. Members of the team should be trained on how to engage parents through the screening and evaluation process. Clear guidelines on parental consent should be developed.

**Systems supports for Phase 3.** Phase 3 assumes that the required structures and systems are in place not only to screen, but also to begin evaluations and provide differentiated instruction to all students. Even though these structures are in place, systems must still be assessed to ensure they are being implemented properly, and complementary policies should be developed. Steps must be taken to ensure that teachers are fully aware of any changes that may take place throughout this stage. Recommendations for Phase 3 include:

- **Reevaluate and standardize tools for both screening and evaluations.** Once standards, tools, and protocols are in place, it is important to periodically review these documents to ensure they are still relevant and being used appropriately. Adaptations may be needed, and any changes must be communicated to teachers with information on why these changes were made and how to implement the new tools. Families of children with disabilities and DPOs should be engaged in any revision or review of tools.
- **Develop or strengthen policies to support screening and evaluation practices.** Once systems are in place, governments may want to consider developing policies or strengthening existing ones to complement the systems. For example, many

countries have established policies or ministerial decrees related to IEP development and usage, parental consent requirements, and protocols related to evaluations. Families of children with disabilities and DPOs should be engaged in all policy development and reform.

- **Address how to continually improve teacher knowledge of learning disabilities and differentiated and individualized classroom instruction.** Teachers should receive ongoing guidance and training on how to differentiate and individualize classroom instruction. Training should also include instruction on changes in tools or policies that might take place over time. In addition, students may need to provide more intensive instruction in small groups to see if students learning improves and may not require a full evaluation.
- **Educate families on how to best support and advocate for their children outside the classroom.** Families should be educated on strategies to best support their children's learning outside the classroom. This can include reinforcing learning strategies at home. In addition, families should be educated on how to advocate for their children in the school setting.

### Recommended Response for Schools Throughout the Three Phases

As the different systems are developed to allow effective classroom screening and evaluation practices, teachers can conduct interventions to ensure that students receive additional support in the classroom. In other words, a teacher does not need to wait until all systems are developed and implemented before starting to support students with learning disabilities in the classroom. Ideally, teachers' classroom supports would grow alongside systems and standards. However, these supports may not follow the same trajectory as the systems support, which is not problematic if the minimal supports are provided in each phase. Teachers should feel free to move forward with the recommended supports in other phases and do not need to wait for screenings and evaluation services to be developed to provide most suggested instructional practices to include students with disabilities in the classroom. The

recommended phased approach for teacher support is described below.

**School and classroom supports for Phase 1.** In Phase 1, teachers can undertake several interventions to support students while these systems are being developed. Recommendations for Phase 1 include:

- **Implement Tier 1 of Response to Intervention.** Under Tier 1 of Response to Intervention, all students are screened to determine their general achievement level compared to their peers. For an overcrowded classroom, teachers could potentially use the tests they are already giving students to determine student achievement levels.
- **Use the RTI Classroom Guide to differentiate learning in the classroom.** Once students are screened and their achievement levels are identified, teachers can differentiate instruction to provide additional support to those learners. The RTI Classroom Guide provides strategies and suggestions on how to differentiate learning in the classroom. The guide outlines several particularly effective strategies for students with different types of learning disabilities, including:
  - *Systematic teaching of learning strategies.* Systematic instruction involves teaching students how to learn by giving them the tools they need to understand and use new material and skills (Steadly et al., 2008). These skills, such as self-monitoring of understanding, come naturally to many students. However, research indicates that although students with specific learning disabilities can learn these types of strategies, they typically do not use them spontaneously (Kauffman & Hallahan, 2005, p. 32). Systematic instruction is particularly helpful in strengthening skills such as organization and attention. Various types of systematic instruction include: (1) memory devices to help students remember a strategy or concept (e.g., a first-letter mnemonic created by forming a word from the beginning letters of other words); (2) strategy steps phrased in informal language and beginning with action verbs (e.g., read the problem carefully); (3) strategy steps stated in the order in which they are to be used (e.g., students are prompted to read the question carefully

before trying to answer it); and, (4) strategy steps that prompt students to use their reasoning abilities (e.g., the critical steps needed to solve a problem) (Steadly et al., 2008).

- *Multiple learning modalities.* Some students learn best by hearing instructions, others by reading them, and yet others by physically completing a task. Many students with disabilities find visual representations helpful, especially for mathematics instruction. One such approach is Concrete-Representational-Abstract, a three-part instructional strategy in which the teacher first uses concrete materials (such as stones or coins) to model the math concept to be learned, then demonstrates the concept in another visual form (such as drawing a picture). Finally, this strategy uses numbers or symbols (such as writing the numbers on the board) (Steadly et al., 2008). Teachers should also use kinesthetic (body movement) and tactile (touching items) teaching approaches. Examples of these modalities in practice include having students trace letters in the air, acting out parts of the lesson, and using manipulatives to learn new concepts. Similarly, allowing students to demonstrate their knowledge of a concept in a way that is comfortable for them can more effectively illustrate what they know than can forcing knowledge to be presented, for example, in written or oral form (Bulat et al., 2017).
- *Practice and repetition.* All students, including those with specific learning disabilities, benefit from multiple exposures to a new concept and the ability to practice it repeatedly for full mastery. Initial opportunities for practice should be carefully supervised, and immediate feedback about the accuracy of responses should be provided. Also, the teacher should provide students, especially those with learning disabilities, multiple practice opportunities by repeating tasks in a variety of ways. Students who are struggling to learn often need more repetitions of instruction—repetitions of different ways to accomplish the task—and practice to master a concept or skill. This is true not only for initial learning but also over time (Bulat et al., 2017).

**School and classroom supports for Phase 2.** In Phase 2, teachers can undertake several interventions to support students, in addition to the Phase 1 activities already under way. Recommendations for Phase 2 include:

- **Implement Tier 2 of Response to Intervention to support students who may have additional educational needs.** Once all students are screened, and the teacher has a sense of which areas they are struggling in, students are then grouped according to these areas. Teachers provide specific instruction to these groups several times per week, in addition to regular instruction, continually modifying the instruction based on student needs. Additionally, student progress should be monitored to gauge if, and when, the additional instruction is no longer needed.
- **Supporting individualized learning.** Teachers can individualize a student's learning experience by producing an IEP. An IEP is a written plan/program designed to meet a student's individualized education needs to improve academic performance. It is a very useful way to articulate and record the student's strengths and weaknesses, individualized reasonable accommodations that should be provided to a student, and progress toward goals. The IEP should be developed after a multidisciplinary team conducts a comprehensive evaluation, and once it is determined that a student would benefit from special education services. Individual needs, learning goals, and objectives of students with disabilities and the appropriate teaching strategies and required classroom accommodations can be identified throughout this process. IEPs should not focus only on students' weaknesses in the classroom, but also address their individual strengths and how those strengths can be built upon to improve academic achievement. Ideally, IEPs should be developed annually and be continually monitored with regular progress reports on progress toward goals. Families must be engaged as part of the IEP development and monitoring process and, whenever feasible, the student with the disability should be included as part of the IEP team. Involving students in the IEP process is important to help them understand their disabilities and the accommodations that they need to be

successful. For example, the more that students are involved in the process to select possible reasonable accommodations, the more likely the accommodations will be used. Student involvement is also useful in gaining more independence as they reach adolescence (Thompson et al., 2005, pp. 5–6). Some school systems may assume that only students with low-incidence or more severe disabilities need IEPs and thus do not provide IEPs for students with learning disabilities. However, IEPs are a useful tool for all students who are receiving any form of additional support or special education services.

**School and classroom supports for Phase 3.** In Phase 3, teachers can undertake several interventions to support students, in addition to Phases 1 and 2 activities already under way. Recommendations for Phase 3 include:

- **Ensure appropriate tests are being provided to students to gauge their progress accurately.** Assessments should be individualized so students are given tests that can gauge their progress over time. For example, a student who struggles with reading should be given an assessment specific enough to pick up gains in certain areas of reading. It is also critical to include students with disabilities in general assessments: inclusion not only increases the likelihood that such students can reach grade-level standards, but also improves their chances of achieving their postsecondary education and career goals. In the United States, all students with disabilities are required to be included in annual school accountability assessments. Most students with learning disabilities can achieve-grade level standards with accommodations and support, and must be assessed appropriately. Even though

testing to assess progress is needed, students with disabilities should not be overtested.

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## Summary

With the appropriate tools and supports, students with learning disabilities can be highly successful academically and go on to become effective employees and engaged and active citizens. The first step in providing tailored supports is to determine if a student indeed has a learning disability or may be struggling with school for other reasons. This identification process is not always simple or straightforward, but a few concerted efforts by ministries of education and school staff can make this goal achievable. Although effort and time are needed, the alternative of permitting 15 to 20 percent of all students to fall behind academically and fail to achieve their full potential is not acceptable. Rather, country leaders should look to thoughtfully and responsibly build the systems and supports that are needed to enable students with learning disabilities to succeed academically. A comprehensive system includes developing screening and evaluation measures using international best practices, and then providing individualized supports and accommodations. Such systems and supports will benefit students with learning disabilities and will also strengthen learning opportunities for all students.

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## Appendix A. Screening Checklist

**Purpose.** Teachers should use the following checklist (Table A-1) to rule out vision, hearing, or environmental factors before proceeding to a more advanced screening process. A more advanced

screening should be conducted if the answers to all questions are "yes," and yet the student continues to struggle with learning.

**Table A-1. Screening Checklist**

Questions	Yes	No
1. Has the student received a vision screening within the last 6 months?		
2. If a student wears glasses, has his/her vision been screened within the last month?		
3. Has the student received a hearing screening within the last 6 months?		
4. If a student wears a hearing aid, has his/her hearing been screened within the last month?		
5. Is the student's cultural background different from the culture of the school or community? If yes, have materials been adapted to reflect this culture?		
6. Is the student's native language different than that used in school? If so, has the student's proficiency in language of instruction within the school been assessed?		
7. Has the teacher ruled out any significant or traumatic events in the student's life that might be contributing to the current learning problems?		
8. Has the teacher ruled out any factors in the student's school history that may be related to the current difficulty (past academic performance, lack of prior formal education, or prolonged absence from school)?		
9. Has the teacher ruled out any variables related to family history that may have affected school performance (lifestyle, stress, poverty, lack of emotional support)?		
10. Has the teacher ruled out any variables related to the student's medical history that may have affected school performance (illness, nutrition, trauma, or injury)?		

## Appendix B. Evaluation Checklist

**Purpose.** Teachers and members of a multidisciplinary team should use the following checklist (see Table B-1) to determine if they are ready to proceed with

conducting an evaluation. An evaluation should be conducted if the answers to all questions are “yes,” and yet the student continues to struggle with learning.

**Table B-1. Screening Checklist**

Questions	Yes	No
1. Has the student received a vision screening within the last 6 months?		
2. If a student wears glasses, has his/her vision been screened within the last month?		
3. Has the student received a hearing screening within the last 6 months?		
4. If a student wears a hearing aid, has his/her hearing been screened within the last month?		
5. Is the student’s cultural background different from the culture of the school or community? If yes, have materials been adapted to reflect this culture?		
6. Is the student’s native language different than that used in school? If so, has the student’s proficiency in language of instruction within the school been assessed?		
7. Has the teacher ruled out any significant or traumatic events in the student’s life that might be contributing to the current learning problems?		
8. Has the teacher ruled out any factors in the student’s school history that may be related to the current difficulty (past academic performance, lack of prior formal education, or prolonged absence from school)?		
9. Has the teacher ruled out any variables related to family history that may have affected school performance (lifestyle, stress, poverty, lack of emotional support)?		
10. Has the teacher ruled out any variables related to the student’s medical history that may have affected school performance (illness, nutrition, trauma, or injury)?		
11. Has an initial screening been conducted to determine if a student may have additional learning needs (see Table A-1)?		
12. Are individuals available to participate in a multidisciplinary team?		
13. Has someone been trained on evaluation and is available to lead the multidisciplinary team?		
14. Are standards and protocols in place for conducting an evaluation?		
15. Have assessment tools been translated into the various languages within the country, adapted to the cultural context, and piloted in a variety of settings?		
16. Has the family been informed about the need to conduct an evaluation and provided their signed consent?		
17. Is there a process in place to develop and use Individualized Education Plans (IEPs) in the classroom?		
18. Is a member of the multidisciplinary team available to develop an IEP based on the findings of the evaluation?		
19. Is the family engaged as part of the IEP process, and do they serve as key members of the IEP team?		
20. Are reasonable accommodations, adapted to the specific needs of students, available for testing and within the classroom?		
21. Is an understanding or a process in place to develop an evaluation report that can be shared with families and others?		
22. Is a system in place to provide students with additional services or special education if deemed necessary as part of the evaluation?		

## Appendix C. Categories of Tests

Several categories of tests can provide different types of information about a student. The primary categories of tests include the following:

- **Standardized assessment.** A standardized assessment is a highly structured test administered to all students using the same instructions, procedures, and materials (Bergeson, et al. 2008; Overton, 2012). Standardized assessments are frequently norm-referenced, and they can assess the progress of all students in certain knowledge and skills (Bergeson, et al. 2008). However, these tests can also penalize specific groups of students, including students with disabilities and students from linguistic/cultural minority groups. Although accommodations may be provided to an individual during testing, the test itself cannot be modified or adapted to meet the needs of a specific individual because the goal is to present a standard set of materials.
- **Norm-referenced assessment.** A norm-referenced assessment compares a student's score to a nationally representative sample of students in the same age and grade (Bergeson et al., 2008). Norm-based assessments are almost always standardized to show a consistent comparison. However, the results of these assessments may only be meaningful if the representative sample used in the tests "includes children who share the language, culture, and/or (dis)abilities of those being assessed" (Bergeson, et al. 2008, p. 16).
- **Criterion-referenced assessment.** Criterion-referenced assessments measure a student's performance against a predetermined set of criteria, which generally consist of developmentally sequenced or task-analyzed skills. These tools can be helpful in determining if a student has increased skill level or mastered a specific academic skill. Although these tests may be standardized, there is often more flexibility in the administration and materials.
- **Curriculum-referenced assessment.** Curriculum-referenced assessments measure how a student is performing using the content and goals of the curriculum. Curriculum-reference assessments

can be conducted after completing a specific set of instructions (such as chapter tests) or can be done informally on an ongoing basis.

- **Checklists and rating scales.** In addition to these categories of assessment, many educational systems also use predetermined checklists and rating scales to help determine if a student is ready to transition to another type of service or curriculum placement. These types of supports can also be helpful for screening and monitoring potential behavior.

Some tools fall under multiple categories of testing. For example, many standardized tests are also norm-referenced. Each assessment can potentially fill a vital role and be interdependent and complementary to one another. Ideally, a system would build on the different assessment tools to provide as comprehensive a picture as possible of a student's strengths and challenges (Hussain, Tedasse, & Sajid, 2015).

With all the different types and categories of screening and evaluation tools, knowing which ones to use and when can be challenging. Table C-1 provides a comparison of the different types of tools, who should administer the tools, and what type of information they measure. Each type of tool and category of testing has advantages and disadvantages. For example, although norm-referenced assessments can indicate if a student has made progress, they do not necessarily indicate how much progress an individual has made. Likewise, using only norm-referenced tests can be discouraging for many students with disabilities who struggle academically, because tests may always indicate that they are behind their peers without indicating their individual achievements and progress. Thus, when selecting tests to screen or evaluate students with learning disabilities and to monitor their progress, teachers and other evaluators must use a variety of assessments from different categories of testing.

**Table C-1. Comparison of different types of tests, their purpose, who should administer the test, and their usage**

Type	Purpose	Administered by <sup>a</sup>	Use
Norm-Referenced Assessments	To compare a specific student's ability with that of same-age students in national sample	Teacher (group tests), school psychologists, educational diagnosticians, other members of Individualized Education Plan (IEP) team (individual tests)	When achievement or ability must be assessed for annual, triennial, or initial evaluations
Standardized Assessments	To provide specific instructions and procedures; often are norm-referenced	Teacher or members of intervention/IEP teams, such as school psychologists or educational diagnosticians	When achievement or ability must be assessed for annual, triennial, or initial evaluations
Criterion-Referenced Assessments	To assess a student's progress in skill mastery against specific standards	Teacher or members of intervention or IEP team	Determine if a student has mastered skill(s) at the end of unit or end of curriculum period
Curriculum-Based Assessment	To determine how student is performing using actual content of curriculum and to measure progress of a specific skill against an aim line	Teacher	Measure mastery of curriculum (chapter tests, etc.) or daily or several times a week
Checklists, Rating Scales, Observations	To determine student's skill level or behavioral functioning	Teacher or members of intervention or IEP teams	Curriculum placement determination or behavioral screening

<sup>a</sup> Prior to administering or conducting different assessments, these individuals must know the tool(s) and have received the appropriate prior training.

Source: Adapted from Overton (2012).

## Appendix D. Simple Vision-Screening Protocols

### Introduction

Vision screening is an efficient and cost-effective method to identify pupils with visual impairment or eye conditions. Following a screening, a referral can be made to an appropriate medical professional for further evaluation and treatment if deemed necessary.

### Step 1: Ensure Appropriate Screening Environment

The screening environment is important in order to limit distractions and to reduce the chances that cues are provided by the screener. Recommendations for the screening environment include:

- The vision screening needs to take place where there is adequate lighting, such as in a room that receives a lot of natural light from the sun or a room where working overhead lights are evenly distributed.
- The screening should take place in an area with minimal distraction—away from other pupils involved in school activities or waiting to be screened.
- Vision should be tested with both eyes uncovered (to test for their vision as they typically see), followed by each eye individually (to see if the problem lies in the left or right eye or there are differing levels of impairment in each eye).
- An eye patch, cupped hand, or piece of paper can be used to cover the eye completely to avoid peeking, especially if one eye is stronger than the other. The pupil should avoid putting pressure on the eye.
- The screening should be performed by someone who understands the vision screening process.
- One pupil should be tested at a time.
- Other pupils should not be able to see the chart before they are tested, to prevent cheating.
- The person doing the screening should stand behind the child to ensure they are not blocking their view of the screening charts.

### Step 2: Screening the Pupil with Near-Sightedness

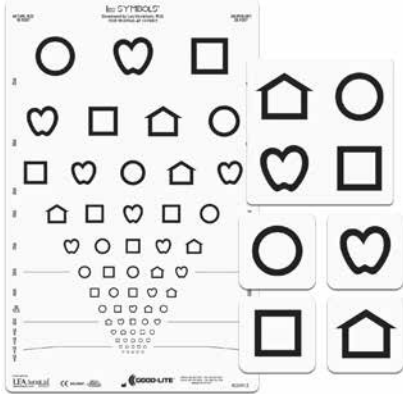
Near-sightedness refers to having difficulty seeing things farther away (or being able to see things close up better). An example of this would be having difficulty seeing what is written on the chalkboard from a distance, but being able to read out of a textbook without trouble. Most students with vision difficulty fall under this category.

A simple vision screening tool that can be used to see if a student is near-sighted is the Lea chart. The Lea chart (Figure D-1) is more appropriate to use with children that are not literate. The chart includes pictures/symbols that are larger on the top row and get gradually smaller as one continues down the chart. The student has flashcards with the corresponding pictures or symbols on them.

### Step 3: Screening the Pupil with Far-Sightedness

Far-sightedness refers to having difficulty seeing things close up (or being able to see things further away better). An example of this would be having difficulty reading a textbook but being able to see the chalkboard without trouble. A child who has trouble seeing things close up is usually having trouble focusing on what they see. Although fewer children have difficulty with far-sightedness versus near-sightedness, it is still important to screen for both.

- A. Mark off 16 inches from the near vision wall chart and masking place tape on the floor. In some cases, using pre-cut string that measures 16 inches may be helpful to ensure that that distance from the wall to the child is correct. Ask the pupil to place their heels on the masking tape or the other floor marking.
- B. Explain the process of the vision screening to the pupil using simple and clear instructions in their native language.
- C. Show the pupil the symbols on the Lea chart that will be used with the vision exam and be sure that you both agree on the names to identify the different symbols. You may also want to print out the four symbols on smaller cards that a pupil can show rather than saying the name of the object.

**Figure D-1. Lea chart**

Note. A Lea chart is used for screening near-sightedness for children who are illiterate. The chart includes flashcards that help student to express the figure they see on the chart.

1. The teacher will place the pupil 6 meters from the chart which should be placed at eye level on a wall. The teacher may want to place tape on the floor and have the pupil stand behind the tape. This is helpful especially when multiple screenings need to take place on the same day.
  2. Explain the process of the vision screening to the pupil using simple and clear instructions in their native language.
  3. The teacher will point to a row of pictures/symbols and the pupil will hold up a card with the matching picture/symbol as they identify which figures they see on the chart. If the pupil identifies more than three pictures/symbols on that row correctly, the teacher should proceed to the next row down. If a pupil is wearing glasses, ask them to close their eye and cover their glasses instead. Test them with and without their glasses to obtain a baseline.
  4. For each line that a pupil can match or answers three or more images on a line correctly, they will then be asked to go to the next line below, slowly moving towards lines with smaller symbols.
  5. Record the last line that a pupil was able to read or match successfully three or more images on a line. Repeat the process asking the pupil to cover their left eye and record the last line that a child was able to read or match successfully. Any pupil who has a difference of two lines or more between the right and left eye (even if the results are within passing range) should also be referred to an eye care professional, as this difference between eyes may indicate a larger vision issue.
- Some pupils may be more comfortable matching rather than saying the names of the symbols and either method is acceptable.
- D. Ask the pupil to close her right eye and place the palm of her hand over her right eye to ensure that she is only using the left eye for testing. If a pupil is wearing glasses, ask her to close her eye and cover her glasses instead. Test her with and without their glasses to obtain a baseline.
  - E. Have the person administering the screening stand to the side of the wall chart, ensuring that he is not blocking the pupil's ability to see the wall chart in any way. Have the screener point to line 20/200—he should briefly point to the line and then immediately withdraw his hand. Instruct the pupil to read the symbols on the chart from left to right.
  - F. For each line that a pupil can match or answers three or more images on a line correctly, she will then be asked to go to the next line below slowly moving towards lines with smaller symbols.
  - G. Record the last line that a pupil was able to read or match successfully three or more symbols on a line. Repeat the process asking the pupil to cover her left eye and record the last line that a child was able to read or match three or more symbols successfully.
  - H. All pupils who can read the 20/32 symbol line “pass” the screening test and most likely do not have challenges with their near vision. Pupils who cannot read the 20/32 line or above lines should be referred to an eye care professional for further testing.

#### Step 4: Conduct Follow-up and Referral

If the pupil is unable to see the symbols/pictures toward the top of the page or has trouble reading from material close to their eyes (such as textbooks), please inform the parents that you suspect the pupil is having challenges seeing and that you recommend they go to a medical professional for a full formal screening.



## Appendix E. Simple Hearing-Screening Protocols

### Introduction

The purpose of this tool is to provide steps for a simple screening process when immediate access to medical facilities are unavailable. The screening is designed to take place in the school setting in an appropriate screening environment. The information below provides guidance on screenings with and without the use of technology. The screenings are simple and intended to provide teachers and caregivers with a better understanding of the child's condition. If impairment is suspected, the child should be referred to a medical facility for a full screening and diagnosis.

### Step 1: Ensure Appropriate Screening Environment

The screening environment is important in order to limit distractions and to reduce the chances that visual cues are provided by the screener. Recommendations for the screening environment include:

- Test away from stairs, windows, street noise, hall traffic, cafeterias, gyms, heating/cooling vents and equipment (such as fans), bathrooms, play areas, etc.
- Try to limit visual distractions such as information on chalkboards, etc.
- A pupil should be tested facing a blank wall, comfortably seated, with his/her back facing the screener so that no visual cues from the tester can be read by the pupil.
- Provide screening instruction in a child's native language using simple and clear instruction.
- Test in the presence of a trusted adult and without other pupils watching the process.
- Test one pupil at a time.

### Step 2: Screen the Pupil Using Technology Available

There are several apps that can be used to test hearing effectively. Many free apps are available, but the reliability varies. When choosing a free screening app for a phone or tablet, it is important to consider

the design and adaptability to context. Applications should be designed by a team knowledgeable of the topic (e.g., audiologist) and include language or materials that are easily understood by users. Pure tone tests are typically used by audiologists.

#### Materials Needed:

- Smart phone or tablet
- Headset—Ideally, headsets that limit background noise or are completely noise cancelling should be chosen. Additionally, some apps may require that headsets are calibrated for standard reading.
- Reliable screening app (i.e., reputable developer, simple yet accurate instructions, and pure tone audiometer). HearScreen is an example of a cost-based reliable screening app.

Directions will vary depending on the specific requirements of each app. The following are general steps to follow when using technology-based apps:

1. Read instructions carefully and explain the process to the pupil.
2. Conduct the test. During a pure tone test, pupils are asked to wear headphones and listen for a faint tone at various pitches. The tone will be played in one ear at a time. The individual raises his/her hand immediately following the tone to indicate that it is heard. If no hand is raised, this informs the assessor that the tone was not heard at a certain pitch.
3. If the test indicates that the child has challenges hearing, it would be best to repeat the steps to ensure that the same results are obtained. If the results are not clear (i.e., the pupil fails the screening during first test but the pupil passes the second test) it would be best to conduct one final screening at a later time.
4. Record results. Records should include the pupil's name, date of screening(s), results of screenings and any additional comments that may be helpful when the pupil visit a medical facility.

### Step 3: If Technology Is Not Available, Screen Using Simple Tools

The following screenings are typically used on younger children, but they can provide you with insight on the hearing challenges of children of any age (Clark & Newton, 2015; Hesperian Foundation, 2009).

#### Materials Needed:

- 2 people: Individual to conduct screening and observer
- Chair or place for the pupil to sit
- Rattle or noisemaker (could be made by placing seeds or small stones in a can/bottle/etc.)
- Paper and pencil to record child’s responses to the assessment

Before the screening begins, provide the pupil with an overview of the assessment. Inform him/her to raise one hand when the noise is heard. Younger children, or those in pre-primary classes, may not respond to

the noises by raising their hands. If the pupil has not raised his/her hand yet or responded to the sound in any way, take a moment to ensure that the pupil understands the instructions. If the pupil does not raise his/her hand but seems startled by the sounds or turns toward the sound, this is an indicator that the sound is heard.

1. The teacher with the shaker starts by standing 10 ft. (3m) directly behind the pupil, takes one step to the left of the child and shakes the rattle. The teacher pauses and then repeats once more for a total of two short shakes with a pause between them. After each shake, the teacher should ensure that the child is looking forward. The teacher should then take two steps to the right, to move to the right side of the pupil. Once the teacher is one step to the right of the pupil, the teacher should shake the noisemaker a total of two times. If pupil is visibly startled or upset by the sound of the noise, the teacher should make sure he/she is calm before continuing to the next step.

**Name of child:**

**Date of Assessment:**

Question	Yes	No
Did the child respond to the sound by raising his/her hand?	Yes, at all distances. Yes, at some distances. Which? Distance 1: Distance 2:	No, at all distances
Did the child respond to sounds on both sides?	Yes, at all distances. Yes, at some distances. Which? Distance 1: Left/Right Distance 2: Left/Right	No, at all distances

#### For pre-primary students:

Was the child startled by the noise? <i>This can be seen if the child jumps or cries in response to the sound.</i>	Yes, at all distances. Yes, at some distances. Which? Distance 1: Distance 2:	No, at all distances
Did the child respond to the sound by turnig his/her head or looking towards the sound?	Yes, at all distances. Yes, at some distances. Which? Distance 1: Left/Right Distance 2: Left/Right	No, at all distances

2. After shaking on both sides twice, the teacher should move closer to the pupil to stand 5ft (1.5m) behind the pupil on each side and shake the noisemaker on each side of the pupil’s head twice in the same manner as before.
3. The teacher should move closer, 6 inches (15.4cm), and repeat the same process with the shakers- SOFT shakes on each side of the head. IMPORTANT: If loud noises are made that close to the ear, it could be damaging to the child’s ear.
4. Consult with the individual observing the child to answer the following questions.

If the student receives a “No, at all distances,” the screening is complete and immediate referral is advised. If the child receives a “Yes, at all distances” or a “Yes, at some distances,” you can proceed with assessment 2, which focuses on sounds.

**Assessment 2 (optional):**

This is an optional assessment that can be given to pupils if you believe that they hear some sounds but not others. This simple screening is intended to assess the pupil for his/her ability to hear high and low pitch sounds.

**What You Need:**

- Quiet room/space
- 2 people: Individual to conduct screening and observer
- Paper
- Spoon and cup
- Rice
- Wood
- Tin can
- Drum

**Directions:**

1. Before beginning the screening, the pupil should be calm and quiet.
2. Assessor sits behind the child at arm length, on one side. Another person in the room will remain in front of the child to note when s/he responds to a sound or to redirect the child to the toy when the noise has completely distracted him/her. Assessor should:
  - a. Say “Ps” and “sh”
  - b. Place the small piece of wood in can and shake
  - c. Say “Oooo”
  - d. Rub a spoon inside a cup
  - e. Remove the wood and place the rice inside. Shake the can with the rice inside
  - f. Tap drum (if available)
  - g. Repeat sounds on opposite side
  - h. If one of the sounds is not heard by the child, repeat once. If sound is not heard the second time, record the sound as unheard by the child.

Circle which noises the child responds to by raising his/her hand. Younger children can respond could include mimicking, jumping, crying, or turning toward the sound.

**Name of child:**

**Date of Assessment:**

High	Low
Ps or Sh	Oooo
Spoon in up	Drum
Rice in Can	Wood in can

## Appendix F. Sample Follow-up and Referral Protocol

For the first screening, if the pupil's results includes "yes, at some distances" or "no, at all distances," a referral should be provided. For the second screening, if the pupil does not respond to one or more of the

sounds listed as low or high, please reach out to the parent/caregiver and suggest that refer the pupil to a medical professional for a formal screening. An example of a referral note can be found below.

### Referral Note

Date: \_\_\_\_\_

Dear \_\_\_\_\_ Parent/Guardian \_\_\_\_\_,

Pupil's name \_\_\_\_\_ was screened for vision and hearing

at School's name \_\_\_\_\_.

His/her screening results indicates the child may have:

Possible vision challenges : Left/Right/ Both Eyes

Possible hearing challenges: Left/Right/Both Ears- *indicate if impairment is expect at certain level (e.g., low or high pitch sounds)*

As a result, the child may have an increased risk of developing serious conditions and we recommend further medical investigation. The medical center is the best place to conduct an additional screening.

Respectfully,

\_\_\_\_\_  
Signature (Name of the teacher)

\_\_\_\_\_  
Print (Name of the teacher)

## Appendix G. Self-Assessment Guide for Phased Approach

**Purpose.** The purpose of this self-assessment guide (Table G-1) is to help decisionmakers and school staff gauge if they are ready to conduct screenings and evaluations related to learning disabilities. It is also meant to provide information on what systems or supports should be prioritized and put into place

before a screening or evaluation is conducted. This guide does not dictate instructional or teaching practices in the classroom, but rather provides options for what teachers can do if certain systems are lacking.

**Table G-1. Phased approach self-assessment**

Questions	Yes	No
1. Are hearing and vision screening tools and protocols on how to use these tools in place?		
2. Is hearing and vision screening implemented routinely within all public schools in the country?		
3. Is a referral system in place for students who may be identified with vision or hearing challenges?		
4. Is a system in place to assess and rule out other environmental issues that may be impacting a student’s academic performance?		
5. Are standards, protocols, and guides in place on how to screen students to identify possible learning disabilities?		
6. Have screening tools been translated into all local languages and adapted to the cultural context?		
7. Are teachers trained on how to use these tools in the classroom setting?		
8. Are Individualized Education Plans (IEPs) used for all students identified as having additional learning needs to address a student’s academic strengths and weaknesses, provide additional educational supports, and monitor progress?		
9. Are families engaged in the IEP process?		
10. Is the subject of learning disabilities and how to support students with learning disabilities in the classroom part of preservice required coursework?		
11. Has the subject of learning disabilities and how to support students with learning disabilities in the classroom been part of in-service teacher training?		
12. Do teachers know and understand how to use Response to Intervention to identify if a student has additional learning needs?		
13. Are reasonable accommodations provided to students who have been screened to have additional learning needs provided on an individualized basis?		
If all the above questions are answered “yes,” then continue to question 14. If one or more questions are answered “no,” then the system should be considered <b>Phase 1: Nascent Screening and Differentiated Instruction Stage.</b>		
1. Is a system in place to track how students respond to Tier 2 of Response to Intervention and to assess if an evaluation is needed?		
2. Are standards, protocols, and guides in place to evaluate students to identify if they have a learning disability?		
3. Have evaluation tools been translated into all local languages, adapted to the cultural context, validated, and normed?		
4. Are specialists trained to lead and serve as part of a multidisciplinary team to conduct evaluations?		
5. Are a speech therapist, occupational therapist, and physical therapist available at the school level (or itinerant supports) to participate as members of a multidisciplinary team as needed?		

*continued*

**Table G-1. Phased approach self-assessment (continued)**

Questions	Yes	No
6. Do all general education teachers know how to participate as part of an evaluation and support the development of an IEP?		
7. Is a system in place to obtain parental consent to conduct an evaluation and engage parents in the evaluation process?		
8. Are standards in place for evaluation reports and referral for services?		
9. Have teachers received training as part of in-service or preservice on how to individualize instruction and ensure that IEPs are implemented and monitored?		
10. Is a system in place to conduct periodic reevaluations of students and assess their needs and support services?		
If all the above questions are answered “ <b>yes</b> ,” then continue to question 24. If one or more questions are answered “ <b>no</b> ,” then the system should be considered <b>Phase 2: Emerging Systems and Individualized Instruction Stage</b> .		
1. Are screenings and evaluations taking place routinely with multidisciplinary teams using culturally adapted tools and standards?		
2. Are policies or ministerial decrees developed to support the effectiveness of screenings and evaluations at the school level?		
3. Are screening and evaluation tools, protocols, and practices assessed regularly and updated as needed?		
4. Are identifying and supporting students with learning disabilities included in preservice course work and part of regular in-service training?		
5. Are IEPs updated annually to ensure that the appropriate learning supports are in place for students with learning disabilities?		
If all the above questions are answered “ <b>yes</b> ,” then the country should be considered <b>Phase 3: Established Systems and Supports</b> . If one or more questions are answered “ <b>no</b> ,” then the system should be considered <b>Phase 2: Emerging Systems and Individualized Instruction Stage</b> .		

## Appendix H. Glossary of Terms

**Auditory Processing Disorder (APD).** Also known as Central Auditory Processing Disorder, APD is a condition that impedes sound as it travels through the ear and is processed or interpreted by the brain. Individuals with APD do not recognize subtle differences between sounds in words, even when the sounds are loud and clear enough to be heard. They can also find it difficult to tell where sounds are coming from, to make sense of the order of sounds, or to block out competing background noises.

**Behavior Analyst.** A behavior analyst is a trained professional who specializes in conducting behavioral assessments, identifying causes of behavior problems, and providing a treatment plan. In the United States, these professionals are certified by the Behavior Analyst Certification Board.

**Criterion-Referenced Assessments.** Criterion-referenced assessments measure a student's mastery of a set of skills or given criteria, such as reading or mathematics. Unlike a norm-referenced assessment, a criterion-referenced assessment cannot tell a teacher how the student performed in relation to peers.

**Curriculum-Referenced Assessments.** Curriculum-referenced assessments measure a student's performance using curriculum content. These assessments can be used to monitor the progress of all students in all educational settings.

**Evaluation.** An evaluation is a comprehensive evaluation of an individual student that can provide information about a student's academic or behavioral needs. The results of an evaluation can help teachers identify what specific educational supports are needed for an individual student.

**Differentiated Learning.** Differentiated learning practices are instructional practices that are altered to meet the learning needs and interests of different students in a group, such as both girls and boys, or students with and without disabilities, in a classroom. These practices can include changing the instructional content, how the teacher teaches, and what a student is expected to be able to do at the end of a lesson.

**Disability.** The United Nations Convention on the Rights of Persons with Disabilities of 2006 defines disability as including "those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others."

**Dyscalculia.** Dyscalculia is a specific learning disability that affects a person's ability to understand numbers and learn math facts. Individuals with this learning disability may also have difficulty comprehending math symbols, struggle with memorizing and organizing numbers, have difficulty telling time, or have trouble counting.

**Dysgraphia.** Dysgraphia is a specific learning disability that affects a person's handwriting ability and fine motor skills. Problems associated with dysgraphia may include illegible handwriting, inconsistent spacing, poor spatial planning on paper, poor spelling, and difficulty composing writing as well as thinking and writing at the same time.

**Dyslexia.** Dyslexia is a specific learning disability that affects reading and related language-based processing skills. Dyslexia can affect reading fluency, decoding, reading comprehension, recall, writing, spelling, and sometimes speech and can exist along with other related disorders. Dyslexia is sometimes referred to as a language-based learning disability.

**Evaluation Tool.** An evaluation tool is a tool or procedure designed to diagnose a student with a specific disability after the student completes a screening process. Results from evaluations often inform eligibility for special education services.

**General Education.** General education is formal school-based education made available to students in a community, generally by a ministry of education.

**Hearing Screening.** A hearing screening assesses whether a person has hearing difficulties. The screening is intended to be done quickly and is used to identify people who may need a full hearing evaluation.

**High-Incidence Disability.** A high-incidence disability commonly occurs in larger numbers than other disabilities, such as learning disability, speech/language disability, and mild intellectual disability.

**Inclusive Education.** Inclusive education is an education system that includes students with disabilities in their local schools alongside students without disabilities. According to the United Nations Office of the High Commissioner for Human Rights Committee on the Rights of Persons with Disabilities, in its 2015 General Comment on the right to inclusive education, inclusive education “involves a process embodying changes and modifications in content, approaches, structures and strategies in education, with a common vision that serves to include all students of the relevant age range.”

**Individualized Education Plan (IEP).** An IEP is a plan or program developed by a committee usually made up of a student’s teacher, resource staff, parent, and the student to ensure that a student with a disability receives specialized instruction and related services. An IEP sets out yearly goals for the student and monitors the progress of those goals to ensure that the student is progressing in school.

**Individualized Learning.** Individualized learning refers to instructional practices designed to meet the needs and interests of a given student. These practices can include changing the instructional content, how the teacher teaches, and what a student is expected to be able to do at the end of a lesson.

**Language Processing Disorder (LPD).** An LPD is a disorder that can affect a person’s ability to understand spoken, signed, or written language. People with LPD may have difficulties expressing themselves with language and understanding other people’s use of language.

**Learning Disability.** A learning disability is defined as experiencing challenges with basic skills such as reading, writing, and/or math. Examples of learning disabilities include dyslexia, dyscalculia, and dysgraphia.

**Low-Incidence Disability.** A low-incidence disability is less commonly found in educational contexts than other disabilities. Examples of low-incidence disabilities include hearing difficulties, visual difficulties, and orthopedic difficulties.

**Multidisciplinary Team.** A multidisciplinary team is a group of professionals from multiple disciplines. For the context of this guide, the goal is to assess a student for a potential disability and to provide recommendations for specially designed instruction, including an IEP. Examples of disciplines that may be represented by a multidisciplinary team include special education, general education, occupational therapy, or speech-language pathology.

**Non-Verbal Learning Disabilities (NLD).** An NLD is usually characterized by a significant discrepancy between higher verbal skills and weaker motor, visual-spatial, and social skills. Typically, an individual with NLD has trouble interpreting nonverbal cues like facial expressions or body language and may have poor coordination.

**Norm-Referenced Assessments.** A norm-referenced assessment compares a student’s performance to a representative sample of students who are of the same age and in the same grade. This type of assessment is usually standardized.

**Occupational Therapy.** Occupational therapy is a service that helps people better engage in activities of daily living and better develop, improve, sustain, or restore independence.

**Physical Therapy.** Physical therapy focuses on preserving, enhancing, or restoring movement and physical function that has been impaired or impacted by a disability, injury, or disease. Physical therapy uses techniques such as therapeutic exercise, massage, and patient education and training.

**Pull-Out Model.** In a pull-out model of instruction, a student with a disability is removed from—or pulled out of—the general education classroom to receive special education or additional supports in a separate classroom or resource room.



**Push-In Model.** In a push-in model of instruction, a student with a disability receives special education and/or additional supports/services (for example, special educator as a co-teacher, speech therapy) in the general education classroom instead of in a separate setting.

**Reasonable Accommodations.** A reasonable accommodation is a change made to a curriculum, method of instruction, assessment, homework, or other school-based activity or requirement that is designed to reduce or eliminate the effects of a disability on a student. An example is extending time on tests or homework. Reasonable accommodations are intended to provide equal access and do not fundamentally alter the material or instructional environment.

**Resource Room.** A resource room is a separate room where students with disabilities are given direct specialized instruction, therapy services (such as speech or occupational therapy), and assistance with homework and related assignments. Within a resource room, instruction may be individualized or take place in small or large groups. Students typically split time between the general education classroom and the resource room.

**Response to Intervention.** Response to Intervention is a tiered framework for identifying students who may need additional educational support, providing appropriate interventions, and measuring resulting changes in academic or behavioral performance. Students who do not respond to Tier 3 intervention may need to be assessed for potential eligibility for special education and related services.

**Screening.** Screening is the process of using tests and assessments to identify students who may have disabilities. All students attending a school may be screened, and initial testing may identify students who may need individual evaluation.

**Screening Tool.** A screening tool is used to screen students to determine who may need additional support.

**Segregated Education.** Segregated education is the education of students with disabilities in separate schools or classrooms. These classrooms typically only contain students with other similar disabilities.

**Special Education.** Special education is specifically designed to meet the individual needs and strengths of students with disabilities. Such education can occur either in an inclusive general education classroom or in separate classrooms or resource rooms.

**Speech Therapy.** Speech therapy is a service that helps individuals obtain, maintain, or restore speech as well as to support those who may need assistance in speaking more clearly or improving articulation.

**Standardized Assessment.** A standardized assessment is highly structured, with specific procedures for administration, scoring, and test interpretation. These assessments are usually norm-referenced and use statistics to interpret the results.

**Therapy.** Therapy refers to activities and interventions to help restore and compensate for loss of function and prevent or slow deterioration in function in various areas of a person's life.

**Vision Screening.** Vision screening assesses whether a person has vision difficulties. The screening is meant to be a quick means of identifying people who may need a full vision evaluation.

**Visual Perceptual/Visual Motor Deficit.** Visual perceptual/visual motor deficit is a disorder that affects the understanding of information that a person sees, or the ability to draw or copy. This characteristic is seen in people with learning disabilities such as dysgraphia or nonverbal learning disability, and it can result in missing subtle differences in shapes or printed letters, losing place frequently, struggles with cutting, holding the pencil too tightly, or poor eye/hand coordination.

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