



School and Classroom Disabilities Inclusion Guide for Low- and Middle-Income Countries

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Abstract

Having a disability can be one of the most marginalizing factors in a child's life. In education, finding ways to meet the learning needs of children with disabilities can be challenging, especially in schools, districts, regions, and countries with severely limited resources. Inclusive education—which fully engages all children in quality education, including children with various types of disabilities or other learning challenges—has proven particularly effective in helping all children learn, including those with disabilities. This guide provides strategies and recommendations for developing inclusive classrooms and schools. We specifically address the needs of Sub-Saharan African countries, which lack the resources for implementing inclusive education. However, our strategies and recommendations can be equally useful in other contexts where inclusive education practices have not yet been adopted.

Introduction

A disability can be one of the most marginalizing factors in a child's life. An estimated 1 billion people worldwide, 15 percent of the world population, have a disability and, due to attitudinal, organizational and physical barriers, have limited access to equitable participation in family, community, and political life (World Health Organization, 2015). Eighty percent of individuals with disabilities live in low- and middle-income countries (World Health Organization, 2015). Moreover, of the 1 billion people worldwide with disabilities, an estimated 150 million are children (14 years of age and younger), 93 million of which have a moderate or severe disability (World Health Organization, 2011). The vast majority of these children with disabilities live in Africa (UNESCO, 2005).

The majority of countries across the globe, 167 as of December 2015, have ratified the United Nations Convention on the Rights of Persons with Disabilities, which mandates that all children with disabilities have the right to a quality education to reach their full potential. However, many arguments exist regarding the best way to achieve this goal.

Overwhelmingly, research has shown that the most effective method of teaching children with disabilities is to include them in general education classrooms, rather than to segregate them in different classrooms or schools (Fuchs & Fuchs, 1994; Moore, Gilbreath, & Maiuri, 1998). Research has shown that children with disabilities—regardless of the type or severity of disability—who are educated through inclusive education systems learn more and develop better social skills than children with disabilities who are taught in segregated schools or classrooms (National Institute for Urban School Improvement, 2000). Moreover, including children with disabilities positively impacts the learning of students without disabilities in the same classroom (National Institute for Urban School Improvement, 2000).

At a very basic level, children with disabilities fall into the following three broad categories:

1. Children who have moderate to severe vision, hearing, cognitive, and/or intellectual disabilities and who attend segregated schools that target these specific types of disabilities. These schools may be established and managed by ministries of education, or they may be established and managed by faith-based or other nongovernmental organizations.
2. Children with mild to severe disabilities who are not enrolled in any school. Such children are often kept at home, and are thus invisible to the system.
3. Children with mild to severe disabilities who are enrolled in a general education school. These children may or may not have been identified or diagnosed as having a disability, and they may or may not be receiving additional support during the regular school day.

Inclusive education embraces and benefits all children through the design of educational programs that fit the learning needs of each child and fully engage all children in quality education, including children with various types of disabilities or other learning challenges. The United Nations Educational, Scientific and Cultural Organization (UNESCO; 2005) characterizes inclusive education as described below:

Inclusion is a process. It is not a single goal but an ongoing effort to find ever better ways to address the needs of children in a classroom. Inclusion acknowledges that human differences are normal and that not all children learn in the same manner. Tailoring instruction to meet individual student needs is at the heart of inclusive education, and it has become the foundation of most current pedagogical approaches.

Inclusion is focused on identifying and removing barriers to education. This requires being creative and finding ways to use data about what does and does not work to continually seek ways to improve. Identifying and removing barriers can occur at the classroom level, but it should also occur at the student level to ensure that each student is given the full opportunity to learn.

Inclusion is about making sure that all students are present, participating, and learning in the classroom. Inclusion moves beyond simple access to ensure that all children are engaged in meaningful, relevant, and tailored learning opportunities.

Inclusion particularly focuses on those students who are at risk of marginalization, exclusion, or underachievement. This group includes children with disabilities as well as other children who struggle to learn, even if they do not have an identifiable disability.

The Structure of This Guide

This guide provides suggestions for developing inclusive education schools and classrooms in low- and middle-income countries, and particularly in Sub-Saharan Africa. The guide's primary audiences are international organizations working in the field of education and other program implementers, although policy makers and national-level education stakeholders can also benefit from adopting the strategies provided. We provide as appendices options for disabilities testing in low- and middle-income countries (Appendix A) and several easy-to-use checklists that teachers and other school staff can use to promote inclusion within the classroom (Appendix B).

It is important to note that this guide provides strategies specifically intended to support inclusive education for children with mild to severe disabilities who are enrolled in general education schools. We do not intend for it to address the rights and valid needs of children who attend segregated schools for moderate to severe vision, hearing, cognitive, or intellectual disabilities, and we do not intend for it to address the rights and needs of children who have disabilities and are not enrolled in any school. This limited focus is not to minimize the importance of ensuring equitable and quality education to all children; rather, to make this guide as useful as possible, we have limited it to strategies for general education schools and for children who are enrolled in these schools.

The principles and strategies proposed in this guide align closely with Universal Design for Learning principles, such as providing multiple means of representation of the content being taught, allowing students to use multiple means of action and expression, and using multiple means to engage students (National Center on Universal Design for Learning, 2014). At the core of this guide is the recognition that inclusive schools and classrooms benefit all students, not just those with disabilities, and that students do not need to be officially identified as having a disability to benefit from inclusive education strategies. In fact, most of the strategies do not require the identification of disabilities before student needs can be met. The strategies in this guide are good teaching practices that will help all children: those with disabilities, those without disabilities but who still struggle to learn, and those without learning challenges.

Universal Design for Learning (UDL) is a framework for guiding educational practice and designing curricula. UDL principles give all children equal opportunities to learn. UDL can be seen as a blueprint for creating instructional goals, materials, methods, and assessments that work for all children. In particular, UDL encourages flexibility in how information is presented and reduces barriers to learning by encouraging accommodations, supports, and creative ways of meeting the needs of all students. More information about UDL can be found at <http://udlcenter.org>.

This guide is particularly useful for schools that have not yet implemented inclusive education or are only beginning to do so. The strategies presented in this guide are structured using a multi-tiered approach. Schools that have already implemented solid inclusive education practices will likely still benefit from the Tier 2 and Tier 3 approaches outlined in this guide. This guide does not address barriers to inclusive education from beyond the school, for example, barriers that may originate from national policy, inadequate transportation systems, needed systemic changes, or community-based resistance.

Tier 1 Approach. The objective of the Tier 1 approach is to strengthen classroom instruction in ways that will benefit all students, including those with various disabilities. In Tier 1, disability testing or identification is not required beyond what teachers

may normally do when teaching or assessing their students (e.g., basic vision or hearing evaluations that teachers may already administer to students in the classroom). In fact, no special teaching and learning materials are required in Tier 1 strategies beyond those already used in the classroom. However, the Tier 1 approach does assume that teaching and learning materials of a reasonable quality exist and that most students have access to student books, even if students have to share books in a reasonable way (e.g., one book to two students).

Tier 2 and Tier 3 Approaches. The objectives of the Tier 2 and Tier 3 approaches to inclusive education are to expand on the Tier 1 strategies to more directly identify and meet the needs of specific students who are struggling to learn. Tier 2 and Tier 3 require increasingly intense levels of support. Again, in these tiers, testing to determine the precise nature of a disability is not required. What is proposed in Tiers 2 and 3 is that classroom teaching be further refined to offer additional support to all students needing help, for whatever reason. Students with disabilities will be the main participants of this group, although testing may reveal that students without disabilities can benefit from additional help beyond Tier 1 strategies.

Tier 1. Strategies for Enhancing Existing School and Classroom Environment and Instruction

Low- and middle-income schools face significant obstacles to inclusive education. In theory, all children with severe physical and/or sensory disabilities (e.g., vision or mobility disabilities, or children who are deaf or hard of hearing) or with severe cognitive or intellectual disabilities (e.g., children with severe cognitive delays or severe autism) are entitled to general education, but in practice, many are excluded from general education schools. For those children who are currently enrolled in general education schools, too often the school environment is not designed to accommodate disabilities, and most teachers are not able to address these children's needs.

Children with mild to moderate disabilities also face other challenges. Teachers may face difficulties

identifying mild-to-moderate nonphysical disabilities. Often, teachers lack the tools and training to identify disabilities—and even when tools exist, it can be difficult to differentiate between an identifiable disability and other factors that can interfere with learning, such as hunger, disease, lack of learning support outside of the classroom, or unsafe home, community, and school environments. All of these factors can impede learning as much as some disabilities (see, e.g., eXtension, 2015). Even if a disability is detected, teachers and school administrators often lack the required resources to provide specialized and individualized instruction to these children (World Health Organization, 2011).

The strategies proposed below have been shown in research and practice to improve the learning experience and outcomes for all students in a classroom, regardless of presence, type, or severity of disability. Note that a Tier 1 approach does not require the identification of specific disabilities or the cause(s) of any learning difficulty. It does, however, assume that a teacher will know if a student has a vision challenge that interferes with reading or if a student is deaf or hard of hearing. Many teachers will discover these issues simply through interacting with their students, whereas others will use a testing procedure to identify such problems. Appendix A provides information regarding options for disabilities testing that can be used in low- and middle-income contexts. It should be noted that the strategies proposed in this guide do not assume a particular class size or physical classroom environment, and not all strategies will be equally relevant for all settings. Care should be taken to ensure that the strategies adopted are appropriate to the classroom, school, and cultural context in which they will be implemented.

Strategy 1: Modify the Physical Environment

Ensuring an accessible physical environment is vital for students with physical or other motor disabilities. A 2014 study showed that the lack of accessible water, sanitation, and hygiene (WASH) services was the primary reason that children with physical disabilities did not attend school (Singh, Honda, Frost, & Urich, 2014).

One of the main reasons that children with physical disabilities do not attend school is because it is difficult, if not impossible, for them to get access to water, sanitation, and hygiene (WASH) services:

“Children with disabilities, girls especially, are often not able to attend schools because they do not have access to a toilet. Many do not eat or drink water while at school to avoid having to use the bathroom. A full day of school without access to WASH facilities is not only unsafe to a child’s health, but for a girl who is menstruating, it is impossible.” (Singh et al., 2014)

Typically, the disability will often dictate the best way to make the student’s learning environment more accessible. For example, a student who has one arm will need different accommodations from those a student who is blind or has low vision will need. Further, the resources that are available to the student with a disability outside of their classroom, such as access to crutches, a cane, or a wheelchair, should also be made available in the classroom. The practices described below are designed to help create an environment that is accessible for any student (UNESCO, 2009), even in low-resource countries and schools.

In Vietnam, Catholic Relief Services worked with the Ministry of Education and a local architectural firm to retrofit five pilot schools to ensure that they were handicap accessible. The project developed a simple design for ramps and accessible toilets. The Ministry of Education stated that the project was successful not only in modifying schools to guarantee inclusion, but also in raising awareness among school leaders and community members about their responsibility to provide an inclusive environment for students with disabilities.

Use adaptive resources. Wherever possible, the teacher should provide necessary adaptive resources to students with disabilities. This can include securing eyeglasses for students with low vision or crutches for a student who has one leg. Adapted furniture and aids in the classroom should also be allowed. Manipulating pencils, chalk, and other small items can be difficult for students who have challenges with gross or fine motor skill. These children can benefit from working with a peer note taker or can be given larger writing tools. An adaptive resource may also be needed for students who use wheelchairs and do not have appropriate inserts to handle writing utensils

or small items. Items such as beanbag chairs, triangle chairs, and bolsters can all be used help students adopt an upright sitting position. A bolster can be something as simple as pillows or rolled blankets for a child to lean on for support.



Accommodation Tip

A pencil can be pushed through a soft ball (or clay can be molded around a pencil) to make it easier to hold for students with limited motor skills.

Plan the physical space. The teacher should set up the classroom in a way that allows all students to freely and easily move around. Students who cannot easily walk in confined spaces can still participate in school if their classrooms and other areas are arranged with spacious walkways and places to either sit or position a wheelchair. If a school has steps, simple ramps can be constructed from wood to allow for wheelchair access. For students using crutches or wheelchairs who have difficulty accessing their desks, a desk can be constructed to accommodate the students. Further, if toilets or latrines are too narrow, a same-sex assistant can be assigned to help a student with a disability use the facility. Movement around a classroom can be facilitated using simple scooters or prone boards with wheels, on which a child can lie. Pathways and open spaces at the school and in the classroom should be kept clear (UNESCO, 2009). Students who are blind or have low vision will likely need to familiarize themselves with the physical environment in addition to undergoing mobility and spatial awareness training (UNESCO, 2009) to allow them to independently navigate the environment in which learning will occur (Orelve, Sobsey, & Silberman, 2004). If the classroom is rearranged, students who are blind or have low vision should immediately be reoriented to the space.

Assign seating strategically. Students should be seated where they can see and hear the best (UNESCO, 2009). In the inclusive classroom, for example, teachers can consider the following suggestions for students who are deaf or hard of hearing:

- Organize the classroom so that all students are sitting in a “U” shape (see AmpliVox, 2014, for sample seating arrangements).
- Allow a student who is deaf or hard of hearing to sit nearest the teacher.
- Always face the student who is deaf or hard of hearing when speaking to the class and, if possible, use supporting gestures (e.g., while saying “It’s your turn to go to the board,” point to the child whose turn it is and then to the board).
- Do not stand in front of a window or bright light when teaching, because the glare can make it difficult to see your face.

A student who is blind or has low vision is especially susceptible to glare and poorly lit environments. Seating assignments in the classroom should accommodate these sensitivities. If light bothers a student’s eyes, move her away from the window or offer her a hat that can help block the light. In addition, a small board or solid-colored paper can be used as a screen to shade her desk when she is reading and writing. Note that for students with albinism, glare and lighting are issues of particular importance to take into account.

Carefully arranged seating can also help keep students engaged during lessons and can minimize behavioral challenges. Students should not be allowed to select their own seats. Rather, the teacher should position students strategically within the classroom—those who are most likely to be distracted or have difficulty understanding the lesson should be closest to the teacher, and should not be seated together.

Strategy 2: Modify Classroom Management Strategies

Modifying classroom management strategies and being flexible with students support learning. Implementing the following basic strategies will help to ensure that all children receive the best possible opportunities to learn.

Consider student fatigue. Students with disabilities or other learning challenges often tire from the physical exertion required to move and use common implements (e.g., pencils or slates) and/or the mental

and emotional exertion of engaging in the classroom environment during the school day. This can be particularly true for students in the early grades. Therefore, students who fatigue easily should be given extra time and support to master the content being taught. They should also be allowed to take breaks or even leave the classroom if needed. In cases where it is best for the student to leave the classroom for a period of time, important information should be repeated upon the student’s return; one method to accomplish this would be to assign a high-performing peer to update the student on missed information during a break or after school.



Accommodation Tip

Some children may need to learn in a quiet setting, perhaps a quieter part of the classroom. However, the decision to place a student in a more isolated part of the classroom should be made cautiously, so that the alternative setting does not lead to excessive isolation from the rest of the class.

Encourage note taking. Many students benefit from lessons written on paper or on a slate in addition to verbal presentation of information. Presenting information via multiple modalities (e.g., orally and in writing) has been documented to improve understanding and retention for many children, especially those with learning challenges (Ainsworth, 2006; Reiff, 1992). Older students also benefit from the act of taking notes and the availability of their notes after class. For many children who struggle to learn, guided or partial notes (i.e., partially completed notes that are provided by the teacher before the lesson and that the student completes during or after the lesson) are particularly useful.

Working with partial notes keeps students who would otherwise struggle actively involved in listening and responding during a lesson, ensures that they focus on relevant classroom material, and provides them the opportunity to ask clarification questions, which all result in higher levels of achievement in students both with and without disabilities (Chi & Wylie, 2014; Kiewra, 1985; Schwartz & Gurung, 2012). Whether students take notes fully or complete partial notes,

having notes available also allows them access to both assignments and course content after the class has ended, teaches good note-taking skills, and ensures that they have documented the most critical concepts taught. Finally, a peer note taker from the same class should be assigned to a student who has difficulty with writing. The note taker should be a high-performing student who has mastered the content and is able to take on the role of peer without it interfering with his own learning.

Peer mentoring is a proven technique for successfully bringing children with disabilities into the classroom; however, it is important to make sure this practice is not misused. Peer support should not replace teacher engagement and instruction or be used to such an extent that it is viewed by the peer as a burden. Peer support should not become a form of charity that could impede social interaction, engagement, and friendships among children. To avoid these issues, peers can be rotated on a regular basis. Another effective practice for promoting natural peer mentorships is to engage older children within the school to support younger children with disabilities.

Use writing aids. If writing on paper is difficult for students, teachers should allow students to “write” in the air, on their palms, on the backs of peers, in sand, or on chalkboards. Doing so adds another modality to learning that aids all children (Levine, 1998). To help with writing, weighted pencils or simple mechanisms that gently tie pencils or pieces of chalk to a student’s hand can help those with mobility difficulties.



Accommodation Tip

Give face-to-face instruction regularly to check for a student’s understanding, because group interactions can be difficult for a student with communication challenges.



Accommodation Tip

Use different stimuli to indicate regular activities that occur throughout the day. For example, to indicate reading at 9:00 a.m., ring a bell. To indicate mathematics at 9:45 a.m., tap a rhythm on the desk. To indicate recess at 10:00 a.m., clap your hands.

Use schedule aids. Many students, including those with autism spectrum disorders or attention or intellectual disabilities, function at higher levels if they are provided with cues about changes that will occur over the course of the day. This can be accomplished by developing a large calendar-like schedule that can easily be seen by all in the class. It can be used at the beginning of the school day to set expectations, and referred to at regular intervals throughout the day to let students know when changes will occur in their schedules. This aid serves as an advance organizer and helps make transitions during the school day much easier and faster for everyone.

Accommodate communication needs. When possible, teachers should allow students to provide answers in their preferred communication styles and languages; teachers are encouraged to learn the local sign language or other communication styles for this practice to succeed. Students who are deaf, hard of hearing, or have a language disorder do not have easy—or any—access to the spoken language and will in turn struggle with mastering grammatical structure with both the spoken and written forms. The teacher should focus on ensuring understanding and mastery of the content of a lesson while allowing flexibility in how students use the language. Since a child who is deaf or hard of hearing cannot hear or read how the spoken language is used, the child needs to be taught its use directly, whereas hearing children learn grammar through the natural process of listening to everyday conversations. Teachers should learn the basics of the local sign language, such as finger spelling and rudimentary signs, which can help not only students who are deaf, hard of hearing, or have other language disorders but also students who are hearing (Mariga, McConkey, & Myezwa, 2014). Additional communication strategies include the following:

- Allow an extra 5–10 seconds for oral responses in class discussions, and allow for assessments to be given in a format that is most comfortable for the student.
- Make a point of getting students who are deaf, hard of hearing, or have language disorders to participate in large or small group discussions.

- When resuming the lesson after a break in the class, ensure that you have the attention of the student who is deaf, hard of hearing, or has a language disorder.



Accommodation Tip

You can get information from the Deaf Association about your local and regional sign language (<https://wfdeaf.org/membership/ordinary-members/list-of-members>).



Sign Language is a type of language that uses hand gestures and facial expressions to represent both letters and words so that people who are deaf, hard of hearing, or have a language

disorder can communicate. Individuals who are deaf or hard of hearing may prefer to use a local sign language as their primary way of communicating versus speaking or reading lips, which can be difficult to master and often leads to inaccuracies. Sign language, together with written language, should be used as much as possible to encourage communication and literacy for students who are deaf or hard of hearing. The concept of learning both the local sign language and the local spoken/written language is referred to as “bimodal bilingualism.” Teaching sign language to children with disabilities, such as autism, and children without disabilities has also proven to strengthen their concepts of language and literacy development, and thus can be beneficial to many different children for a variety of reasons.

Contact the local Deaf Association for information about the local and regional sign language. (<https://wfdeaf.org/membership/ordinary-members/list-of-members>).

An example of an effective strategy to train all children to use sign language is World Vision’s Child Friendly Spaces Program in West Bank/Gaza. This project provided basic sign language classes for all children, hearing, deaf, and hard of hearing. The training not only improved communication with students in the classroom but also increased interactions with many of the children’s family members who were also deaf and used sign language as their primary means of communicating.

Manage group discussions. Students who are blind or have low vision often miss out on nonverbal cues and communications. As a result, they often miss opportunities for incidental learning, and they may need help understanding what is happening in their environment, such as who is speaking, what the teacher may be writing, where on a page a teacher is

pointing, or where individuals are sitting or standing in the room.

When students with vision-related disabilities take part in classroom discussions, the teacher should remind other students to identify themselves by name each time they speak and carefully describe, in words, any objects, ideas, or constructs being discussed. Teachers should also provide accommodations for regular classroom activities (e.g., group discussions) that enable students with disabilities to contribute and establish a presence in the classroom. For example, students whose speech is difficult to comprehend can be provided with note cards on which they, a peer, or the teacher can write down their contributions.

● ● **Braille** is a tactile reading and writing system—a way to feel text rather than see it. It is used by people who are blind or have low vision. Braille text is provided by raised dots that represent various letters in the alphabet. Each country has its own braille code that demonstrates what the various dots represent. Braille education is crucial to literacy for students who are blind, increases independence, and enhances the opportunity for them to find employment. However, literacy fluency rates are slower for students using braille, and therefore they may require additional time for reading and instruction. Many countries have resources, such as the Africa Braille Center, which supplies braille and other assistive devices.

Address attention problems. A student’s level of physical comfort in the classroom has a direct relation to her ability to maintain attention. Some students, such as those with back injuries, may be more comfortable standing up rather than sitting down, and should be allowed to stand. Students should not be required to sit in a position that causes pain or discomfort. Some students with attention problems, as well as younger children, have a difficult time sitting still for longer than 5–10 minutes. These students should be given an area of the room where they can move around/walk quietly for a short time while still paying attention to the lesson or activity being taught. These students also benefit from having a quiet space where they can focus.



Accommodation Tip

Give a physical task to a student with attention problems. Physical activity can be an effective break from learning, and could help the student return to the lesson more focused. For example, have the student erase the board, rearrange chairs for a new activity, or take a note to the school principal.

Allowing students these flexibilities can help to avoid disruptive behavior. In addition, teachers can support learning by breaking longer lessons or assignments into their component parts, providing reinforcements, and allowing students to take breaks following the completion of each segment of an assignment. Another effective strategy is to work with the entire class during the first few days of the school year to develop a set of behavioral expectations for the classroom and consequences for transgressions. Students engaged this way are likely to take greater ownership of the class rules and are more likely to comply with them, resulting in improved attention in class.

Make appropriate test accommodations. Some students may have a difficult time demonstrating the knowledge they have acquired in the classroom, and may need extra time to complete assignments or tests. Assessments may also need to be adapted to accommodate a child's disability. For example, a student might need to be tested or allowed to use objects to demonstrate understanding of a concept, both of which are typical accommodations for students with learning disabilities.

Use natural supports. Support for students with disabilities can be provided by peers who are part of a student's natural environment. "Natural supports" can be key to the success of inclusive education. Students identified as peer supports, however, must be provided with relevant information regarding their peer's disability, the type of support the peer prefers, and clear instructions on appropriate ways to support the peer in an empowering manner. Classroom peers and other students in the school should be encouraged to assist students with disabilities in a respectful manner, but only after asking the student with a disability if he or she desires help. Teachers

should carefully monitor these relationships to ensure that they remain at a peer-to-peer level, because the key to sustainable natural support is the development of reciprocity in relationships.

Foster reciprocity. Reciprocal relationships between students with and without disabilities are key to developing and maintaining natural supports. It also helps to develop social relationships that can extend beyond the classroom. To create reciprocity, education providers can find ways for students with disabilities to contribute to the classroom and the education of their peers, while encouraging students without disabilities to include classmates with disabilities in social activities and leadership opportunities (UNESCO, 2009).



Accommodation Tip

An example of reciprocity is to pair a student who has difficulty paying attention in class with a student who has low vision. During planned activities or simply while walking through the school, the student with attention challenges can focus on a productive task while supporting the practical needs of the student with a disability.

Strategy 3: Ensure Social Inclusion

Inclusive education is not limited to advancing in-class academic opportunities for students with disabilities. It is a process that also includes a critical social component. Social inclusion helps students with disabilities experience a sense of belonging, a positive presence, and the opportunity to develop and maintain social relationships of their own choosing. In essence, it means that the student with a disability is not just *in* the school community but is an integral *part* of the school community—that the student is not merely tolerated but fully accepted. Inclusive education also requires working with peers and families to ensure that students with disabilities are accepted and respected, and that they are provided a psychologically safe environment in which diversity is not only accepted but also celebrated. Inclusive education should nurture an appreciation among all peers of the skills, gifts, and capacities of students with disabilities.

A basic tenet of inclusive education is to have all students, regardless of disability, spend their time together in school environments. It is particularly important to expose students to inclusive education from the beginning of their formal education so that it becomes the expected norm. However, there are risks to educational inclusion. If the school, teachers, and classmates are not prepared for inclusion, the student with a disability may be ignored, at best—or at worst, harassed and bullied. Below, we describe a number of strategies that can be used to greatly enhance the probability that students with disabilities, as well as all other marginalized students, will be fully accepted in the school community and experience the social and the academic benefits of inclusion.

Respect for diversity. Age-appropriate instruction should be based on a respect for diversity and an awareness that disability is a normal part of life. It should highlight the similarities among students, with and without disabilities, emphasizing their common characteristics, strengths, and needs.

Physical access. Students with disabilities should be given full physical access to areas in which other students eat, play, and socialize, including lunchroom facilities, school playgrounds, and other recreational environments.

Student engagement. Programs to build inclusive social environments should be implemented in schools. Teachers can conduct regularly scheduled brainstorming sessions with entire classes or small groups of students to develop adaptations to games, playground activities, and other social events that will enable all students to fully participate and that allow students with disabilities to excel and to demonstrate their leadership abilities, competencies, and skills to their peers without disabilities. Strategies and programs can be implemented that are specifically designed to bring students with and without disabilities together outside of the school setting. This includes ideas as to how to provide all students with physical, cognitive, and social access to community environments. It also includes schools partnering with community-based social activities, through which communities can be sensitized about the value of including students with disabilities in

the community and student with disabilities can gain connections for possible future employment and natural community supports.



Accommodation Tip

Bring all students together to identify and solve community problems through collaborating, planning, and implementing service activities.

Social reinforcement. Encouragement and social reinforcement should be offered to students with and without disabilities when they initiate interactions with each other. Students with disabilities should be allowed to share their personal stories, including interests and talents, to highlight similarities with peers without disabilities. All students should receive necessary supports to assist them to effectively communicate socially with their peers. For example, the teacher could praise a student who may be assisting another child with reading in class; the teacher might further suggest that these students play together at recess in an activity where everyone can engage equally.

Strategy 4: Adopt Best Instructional Practices

Meeting the needs of all students in a classroom includes modifying the curricular content, engaging in assessments of student progress at least three times per year, and modifying the classroom instruction to allow for targeted small-group interventions as needed. As with other strategies introduced in this guide, implementing the best practices detailed below will ensure that all children have the best opportunities to learn.

Systematic instruction is an approach that builds on students' prior knowledge and presents new information in a methodical way. Systematic instruction must be guided by the curriculum, and uses strategies such as direct instruction, explicit teaching, and precision teaching approaches. In all of these approaches, information is presented explicitly and systematically to students using language that every student can understand. When implementing systematic instruction, the teacher should initiate each lesson by providing an overview of the content

that will be taught, the learning objectives of the lesson, and expectations about how students should respond.

Each component of the lesson should be linked to what preceded it (i.e., previous student knowledge) and what will follow (i.e., new knowledge to which the lesson will be connected). Before moving on to the next topic, the teacher should review what was learned and ask students to respond to short questions chorally (e.g., as a group), in pairs, or individually to informally assess whether they have learned the concepts taught. Teachers provide immediate feedback to students by regularly monitoring their responses to questions until the class reaches mastery. An advantage of this approach is that it allows teachers to determine how to group students who have similar support needs and similar performance levels for short periods of intensive instruction.



Accommodation Tip

Before each lesson, introduce exactly what is going to be taught and how it relates to what has previously been taught. During the lesson, ensure that students understand how it relates to prior lessons. After the lesson, review what was taught and how it fits into the overall curriculum.

Explicit instruction is an effective teaching approach that draws a student's attention to the skill, activity, or concept to be mastered. This is especially helpful for students who struggle to learn new content (Cunningham, 1990). A teacher should not assume that a student will understand a concept unless it is explicitly and directly taught—for example, a teacher should not assume that students will automatically master identifying syllables in words; rather, the teacher should use explicit strategies to show students how to break words into syllables, count syllables, and combine syllables into words.

Explicit teaching of learning strategies. The most effective learners use strategies such as summarization, self-explanation, rereading, and self-monitoring of understanding (Dunlosky, Rawson, Marsh, Nathan, & Willingham, 2013).

However, research indicates that although students with specific learning disabilities, intellectual disabilities, and autism spectrum disorders are able to learn mnemonic strategies, they typically do not use them spontaneously (Kauffman & Hallahan, 2005). Strategies to draw student attention to the most important cues and aspects of learning, such as explicitly pointing out critical concepts, words, and constructs to the learner, should be embedded into everything that is taught. In addition, focusing on one activity at a time and explicitly noting transitions to other activities can help students with cognitive or intellectual disabilities, as well as other students, focus on the task at hand.

Other explicit instruction strategies include bringing students' background knowledge to the learning experience, monitoring each student's understanding of the content, and showing students how to ask for help. The teacher should directly teach students learning strategies, including self-monitoring techniques, such as how to stay on task, pace themselves, take notes, and recognize when they have not learned the content. Teachers should also model these strategies throughout each lesson.

Multiple learning modalities. Some students learn best by hearing instructions, others by reading them, and yet others by physically completing a task. Therefore, as mentioned earlier, effective teaching strategies should use all modalities. Students should have access to quality learning materials, but teachers should also take care to explain concepts to students in understandable "chunks" of information. 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, students can be asked to demonstrate their knowledge of a concept in a way that is comfortable for them rather than forcing them to present knowledge in traditional (written or oral) form. This method can help teachers ascertain how well students understand the concepts taught.

**Accommodation Tip**

To teach letter sounds, make cards with letters on them and allow students to take turns quizzing each other. Or have each student take a card and then have the students arrange themselves in the order of the alphabet, or in the order in which a decodable word is spelled.

Use of manipulatives. Using manipulatives is an example of Universal Design principles that benefits all students. Teachers should use tactile objects that students can manipulate, not just pen and paper. Manipulatives can be as simple and readily available as rocks or sticks, or they can be constructed. Common manipulatives include counting objects such as beads, letter and word cards, letter cubes, and pocket charts. Engaging students in finding or creating these manipulatives can also be a useful way to teach the concept.

Activity-based learning. Many students have a difficult time learning when their only exposure to learning is listening to a teacher talk. Learning is not just about listening, but also about doing. The active part of learning, which involves students' applying what they recently learned in a variety of contexts, should be activity based. When completed in an inclusive classroom, activities should be done in heterogeneous groups—that is, the group should be composed of members with varied learning challenges. In this exercise, teachers should explicitly draw upon students' background knowledge. Explicitly drawing comparisons between substeps in a lesson and between a lesson and students' real-life experiences is particularly beneficial for students with various cognitive, intellectual, or learning disabilities, and the effectiveness of this strategy is widely accepted for all students.

**Accommodation Tip**

Use an activity to teach a lesson. For example, to teach a lesson about deforestation, ask students to identify how many different kinds of trees grow in the area near their school, illustrate the ecology in their region, write and post stories about uses of trees, and make plans for how to protect trees in the region.

Practice and repetition. All students, including those with specific learning disabilities, intellectual disabilities, and autism spectrum disorders, benefit from multiple exposures to new skills or concepts, and the ability to practice those skills repeatedly for full mastery. However, students with disabilities often need more repetition before a concept or skill is fully mastered. Initial opportunities for practice should be carefully supervised; teachers should give immediate feedback to students about the accuracy of their responses. In addition, the teacher should provide students, especially those with 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 that use different ways to accomplish the task—and practice to master a concept or skill. This is true not only during initial learning, but also over time. Frequent reviews of past lessons can help reinforce a student's learning. Independent practice is also an important part of learning new content, but it should only be used when students can demonstrate understanding of the concepts, for example, responding correctly to teacher questions at a rate of 80 percent or higher.

Formative assessment (progress monitoring and mastery monitoring). Continuously evaluating student learning is the most immediate and effective way to know whether students have understood the content to which they have been exposed and whether the instruction is effective. Such evaluation can be simple and informal, such as asking students mastery questions during and immediately following a lesson to determine comprehension, or it can involve the use of more standardized, structured assessment tools and methods, such as curriculum-based measurement probes of oral reading fluency, reading comprehension, math computation, math concepts, and application skills. Teachers must ensure that all students participate in the learning experience and that student evaluations are fair. This means that teachers must guarantee the participation of all students, and provide opportunities for them to respond to questions in nonintimidating and nonthreatening ways.

Scope and sequence. Scope refers to a clearly stated set of learning objectives that reflect local, state, and national expectations, and sequence is the order in which the objectives are taught (Nichols, Shidaker, Johnson, & Singer, 2006). Sequence is often decided by grade level and scope is more detailed and includes the specific learning objectives, which often include benchmarks. The learning scope and sequence together bring order to the delivery of content, support optimal learning, and offer sustained opportunities for learning. Prior to developing or teaching a lesson, the teacher should carefully examine where it fits in with the scope and sequence of the school curriculum, identify areas that may be difficult for students who have learning disabilities, and decide on inclusive ways to teach the content. Examining a lesson in this manner should allow the teacher to determine if the lesson in question, implemented at that point in time, will be effective.

Mutually enriching learning environment. Too often, social stigmas and stereotypes prevent students with disabilities from nondominant ethnic or racial groups and other marginalized groups from being fully integrated into the classroom. Teachers should motivate the class at large to include all students both socially and academically. Classroom management should forbid verbal or physical abusive behavior and should foster full participation of all students; doing so will help to establish a creative, enriched, and productive learning environment for all students, and help dispel stereotypes in broader society.



Accommodation Tip

At the beginning of the year, work with students to create classroom rules that are respectful, inclusive, and empowering. Throughout the year, encourage students not only to adhere to these rules but to reexamine them periodically to ensure that they are accommodating all students with differences.

Positive attitude. The attitudes of teachers, school administrators, and parents are among the most important components of inclusive education. In some cultures, people with disabilities are seen as a form of divine punishment or as carriers of bad fortune (Ingstad & Whyte, 1995). Common negative perceptions of students with disabilities should be recognized and rejected. School staff should invest the time to understand the origin of the attitude (e.g., experience, culture, or influence of others). Once the origin is determined, it is easier to address and alter these concerns. Providing teachers with skills and confidence is one way to shift attitudes, and continuous in-service development is helpful in ensuring that skills are acquired and performed as intended. Eliciting the support and understanding of school administrators encourages and supports teachers in using those skills to promote fully inclusive classrooms.

Strategy 5: Apply Strategies for Teaching Students with Sensory Disabilities

Because sensory disabilities can be the most prevalent type of disabilities that teachers encounter in classrooms, and because the needs of students who are deaf or hard of hearing or are blind or have low vision can be very specific, the following strategies specifically relate to these disabilities.

Blind or low vision. When teaching a student who is blind or has low vision, the teacher should employ the specific strategies in the box on the following page. These strategies will also support the learning of other students in the class, ensuring that all students have the best possible opportunity to see and hear the teacher and fellow students and learn the content being taught.



Teaching and classroom management strategies to assist students who are blind or have low vision

- Make sure that the student has access to clipboards, wide-lined paper, glasses, magnifying devices, and other learning aids as needed.
- Use the student's name frequently to ensure inclusion in conversations and to cue the student when she is expected to respond to questions.
- Ask other students to identify themselves when speaking or asking questions so the student who is blind or has low vision can better follow the discussion.
- Only speak when facing the student.
- Give a clear verbal explanation before, during, and after a task.
- Use books with appropriate print size, an easy-to-read layout, and with an even margin on the left and uneven margin on the right (if reading occurs left to right). If possible, use books with magnified print or provide a magnification device for the student to use.
- If a book includes pictures, describe the pictures to the class in as much detail as possible.
- Allow and encourage the student to use braille and make braille printing devices available to allow the student to write. Current research on braille indicates that it stimulates areas of the brain in a way that is similar to reading and that allows for the acquisition of deeper meaning. Low-cost brailers and other assistive devices are available and should be accessible to most education systems for use in classrooms.
- Make learning as tactile as possible by using tactile objects that the student can feel and manipulate. This strategy is effective when working with many types of special learning needs, but can benefit all students in a classroom.
- Write in large, clear print on the board. If color chalk is available, use only the brightest, boldest colors in the box. Allow the student to come to the board to read what is written when needed.
- Consider light reflection in the classroom. Eliminate light reflecting on the chalkboard, or place the student in an area where the least amount of light is reflected throughout the day.
- Read what is written on the board at a steady pace in a loud, clear voice.
- During the regular school day, a student who is blind or has low vision may need to be taught daily life skills that other students can usually pick up by mimicking their parents, such as dressing themselves, washing, and drinking. Teachers should ensure that the student is given opportunities to master these skills so the student can fully engage in school-based social interactions.
- Visual efficiency, which refers to the group of visual skills important for success in school, sports, driving, and the modern workplace, is important to consider in students who are blind or have low vision. Visual efficiency skills include depth perception; color perception; and visual-motor skills, such as eye teaming, eye movement, and eye focusing speed and accuracy. Among students with the same level of vision loss, the effectiveness with which they use their remaining vision can vary greatly. An individual with 20/20 vision can still have problems with visual efficiency skills. It is critical for a teacher to be aware of the visual efficiency skills of students with low vision and to work with vision specialists to provide such students with exercises that can maximize visual efficiency.
- Vision may not be the preferred mode for all tasks. Although for some tasks vision may be the primary mode of learning for a student with low vision, this is not necessarily the case for all tasks, especially those that are more functional in nature (e.g., pouring water in to a clear glass). As a result, each task that a student who is blind is asked to learn should be evaluated with respect to the preferred and most effective mode of learning.

Source: UNESCO, 2009; Ferrell, 1998; Kloc, 2011.

Deaf or hard of hearing. Just as with all other disabilities, students who are deaf or hard of hearing vary greatly in the severity of their hearing loss and their proficiency with nonverbal forms of communication, such as sign language or lip reading. Nevertheless, the following teaching and classroom

management strategies can assist a child who is deaf or hard of hearing to access and master the content in an inclusive general education classroom (Deaf TEC, 2015; Ferris State University, 2015; University of California San Francisco, 2015).



Teaching and classroom management strategies to assist students who are deaf or hard of hearing

- Ensure that the student is paying attention before beginning the lesson. A light touch on the shoulder, a wave, or other visual signal will help get his attention.
- Keep instructions brief and as simple as possible. When repeating instructions, repeat exactly what was said without paraphrasing.
- Rethink and reduce the material that needs to be covered in class. Present additional material in alternate formats, such as in homework assignments, as part of a required group project, a reading assignment, or as an online learning activity.
- When presenting material in class, provide pacing clues by clearly indicating when the topic is changing. This can be done by verbally, or by pausing or drawing a line on the board.
- Write important words and formulas on the chalkboard. Do not speak until the words or formulas are completely written and the student has read what you have written and then looks at you.
- Look directly at the student when speaking. Speak clearly without shouting. If needed, repeat or rephrase the information.
- When needed, write information on a board or slate to ensure understanding.
- Make sure that the speaker's face is clearly visible so that the speaker's lips can be seen.
- When possible, offer aids to the student such as a sign language interpreter, assistive listening devices, or a note taker.
- Learn the basics of the local sign language. Sign languages are natural languages that have developed and evolved within deaf communities. Although sign languages are typically used by members of the deaf community, knowing a sign language can also help hearing students who have difficulties with speaking and learning languages. In fact, research shows that learning a sign language helps reinforce learning for all other children who are not deaf, deafblind, or hard of hearing.
- Make movement, especially hand movement, purposeful. Try to limit hand and body movement that does not signal where students should look or is not used to communicate content.
- Place seats in a circle or semicircle, which allows students who are deaf or hard of hearing to simultaneously see the teacher and other students. Assign students who are deaf or hard of hearing to sit closest to the board/teacher.
- When other students speak, especially those who sit behind the student with hearing disabilities, repeat their comments and questions.
- Assign another student as a peer aid who can take notes, relay comments or questions by the teacher or other students, and otherwise support the student as needed.
- When teaching, state the lesson objectives, review previous lessons, and summarize lessons periodically. Clearly define course requirements, the dates of exams, and when assignments are due. Provide advance notice of any date changes, and present lecture information in a visual format (e.g., chalkboard and handouts).
- Allow an extra 5–10 seconds for oral responses in class discussions, and provide assessments in a format that is most comfortable for the student.
- In full- and small-group discussions, make it priority to get students who are deaf or hard of hearing to participate.
- When resuming the lesson after a break in the class, ensure that you have the attention of the student who is deaf, hard of hearing, or has a language disorder.

Source: Deaf TEC, 2015; Ferris State University, 2015; University of California San Francisco, 2015.

Strategy 6: Use Assistive Technologies

In addition to the above teaching methods to ensure an inclusive learning environment, the use of assistive technologies has also proven to help students with disabilities in the classroom. These devices do not need to be expensive or difficult to obtain. In fact, many of them can be purchased locally or obtained through adapting current learning tools. Both high- and low-tech methods should be considered for classroom instruction whenever feasible and adapted to a student's specific needs.

Examples of high-tech assistive technologies include the following:

- **Braille.** A “Braille typewriter” with a key corresponding to each of the six dots of the braille code.
 - **Refreshable braille display.** A mechanical device that translates language on a computer screen to a connected braille display.
 - **Computer with text-to-voice software.** Allows for information and text provided on a computer to be read aloud by a computerized voice. Several forms of software, at various levels of cost and usability, are available on the market.
 - **Hearing aid.** A mechanical device placed in the ear of someone who has low hearing to magnify the sounds around them. It is important to note that the presence of hearing aids does not guarantee comprehension of spoken language. Many organizations are trying to provide low-cost hearing aids, including solar-powered devices, to people in developing countries. For additional information on hearing devices in developing countries, please visit the WHO guide at: http://who.int/pbd/deafness/en/hearing_aid_guide_en.pdf.
 - **Alternative communication device.** A device that typically provides pictures and symbols that the device describes aloud and that a person can touch. It enables individuals with severe speech and communication challenges to interact with others.
- Examples of low-tech assistive technologies include the following:
- **Visual aids.** This includes pictures or objects that support learning and allow students to see images and touch objects that go along with learning instruction; for example, a visual schedule (i.e., contains pictures that represent sequencing of events) can help with transitions and understanding of upcoming activities. These aids can help students who are deaf or hard of hearing and those who have learning disabilities.
 - **Magnifying glass.** This simple tool significantly increases the size of text and images, and are useful to people who have low vision to assist with visual learning.
 - **Audio books.** Audio books can accompany text to teach students the proper pronunciation of words. Audio books do not have to be purchased. Instead, a teacher can read a book and record it on a tape/digital recorder (see below).
 - **Tape recorder.** Teachers can record directions, stories, lessons, and other materials for students with learning disabilities to provide them with an alternative to reading. Students can then replay the recordings when needed and can use the recorded stories with a corresponding written text to improve their reading skills.
 - **Slate/stylus.** This cost-effective tool provides a quick way to raise the dots used for Braille. It is small and lightweight, but it can be challenging for students to use for writing because it requires someone to key in the codes and write letters and sentences backwards.
 - **Large print.** Use of textbooks and other materials in large print (i.e., font size of 18 point or larger) can enable students with low vision to better read and access materials.
 - **Adaptive learning materials.** Typical materials and writing tools can be adapted for students who may have physical disabilities. For example, tape, cloth, or rubber can help students grip materials, if needed, and shorter pencils can be used for better control.

Tier 2 and Tier 3. Strategies for Adopting Response to Intervention

As indicated, Tier 1 strategies can be implemented without any form of disability testing or identification other than what the teacher normally does in the classroom. In addition, the strategies proposed under Tier 1 are designed to improve the learning of all children in the classroom, not just those who have been diagnosed with or who are suspected to have an identifiable disability. Tier 2 and 3 strategies are similar to Tier 1 strategies in that they do not require disability testing or identification. However, they differ from Tier 1 in that Tier 2 and 3 strategies are designed to provide more intense and targeted support to students who continue to struggle, even after being exposed to Tier 1 best practice teaching methods. In this section of the guide, we recommend a multilevel system that is necessary to meet the needs of those students who continue to struggle, even with solid Tier 1 classroom strategies in place (Batsche et al., 2005).

It should be noted that in many low-income contexts, the majority of students in a classroom may lag behind national or regional curricular standards. Ensuring that all children perform at grade level is an urgent concern that must be addressed but that is outside of the scope of this guide. Ongoing professional development to increase instructional effectiveness is often required to help students entering the classroom without basic skills and knowledge. As noted, students in these contexts can face factors other than disabilities—such as hunger, illness, poor nutrition, and inadequate learning opportunities outside of the classroom—that can interfere with their ability to learn. In classrooms in which most students continue to lag behind the core curriculum even with sound, basic instructional practices in place, the majority of students would benefit from more intensive instruction such as described below. For these classrooms, continuing teacher training is essential to advance the learning of all students in the classroom.

Within the tiered system, universal screening should be conducted three times per year. Students whose assessment results indicate that they are not keeping up with the core curriculum (Tier 1) should receive small group instruction two to three times per week (Tier 2) that is focused on the areas in which the students are struggling (e.g., reading, mathematics, oral language development, or writing). These small group interventions are typically provided by the general education teachers with support from special educators or other designated staff when possible. Students who receive Tier 2 education support are often a mixture of those with and without disabilities, although students receiving Tier 2 support tend to be those with mild disabilities and/or who are socially or economically disadvantaged. Often, they start school academically behind their peers and their knowledge gap increases as they age.

Students who receive the more targeted and intense additional Tier 2 small-group instruction should have their progress monitored regularly. Those students who continue to fall behind their peers after receiving Tier 2 support should then be provided more extensive remediation and support, typically through one-on-one special education (Tier 3). Tier 3 provides yet another opportunity to support the students' academic development. Based on performance in Tier 3 settings, students who face ongoing challenges may then be referred to classrooms or schools that can provide intensive, individualized instruction on a regular basis. Students receiving Tier 3 support tend to be those with more significant disabilities or those who have fallen so far behind in school that they are unable to catch up to their peers or reach benchmarks for their grade level without intensive intervention.

Effective implementation of this multilevel system relies on the following components:

- valid and reliable measures of student learning that can be administered frequently and are sensitive to growth,
- small-group interventions,
- coordinated systems of screening, referrals, decision-making, and education intervention that are unique to each student (Marston, Casey, & Wallace, 2011), and

- support from a school-level leadership body that oversees the assistance needed by and given to students.

The multilevel system of support described in this manual is inclusive in the sense that it

- aims to provide improved instruction for all students,
- relies on general education teachers to provide the majority of instruction for students with all but the most significant disabilities, and
- focuses on bringing high-quality instruction to all students within general education settings rather than pulling them from regular classes when they need additional support.

Tier-by-Tier Implementation

Screening

The initial step in implementing the proposed system of supports involves conducting universal screening three times per year with all students in a school to determine which students will receive Tier 2 small-group interventions and Tier 3 individualized instruction. This screening at the kindergarten through grade 5 level typically involves the use of short (1- to 3-minute) formative assessments based on the local curricula in the key content areas (e.g., reading, mathematics, oral language fluency, and writing).

Data collected from the formative assessments are then used to place students into appropriate tiers based on their performance. The school's evaluation team or a knowledgeable staff person typically undertakes this work. This team or person will have received training and coaching in the process of interpreting formative assessment data and making effective data-based instructional decisions.

If screening data indicate that the majority of students are not mastering basic academic skills at the level expected for their grade, education staff members need to adapt the content and/or instructional procedures used to deliver the core (Tier 1). When the results of screenings indicate that most students¹ are making sufficient progress, those students that have

not reached the same level of mastery (i.e., students with lower performance) are considered eligible for Tier 2 (or in a smaller number of cases, Tier 3) support.

Tier 2

Focusing on the needs of students who are having difficulty mastering basic skills, teachers ideally work together to design small-group interventions for groups of six to eight students based on the social and academic needs of the groups. This instruction builds on what is being taught in the core curriculum (Tier 1), increases the opportunity to practice and refine skills that have not been mastered, and reinforces student learning.

Tier 2 interventions are delivered within the general education classroom for a minimum of 6–8 weeks to determine if they are effective in helping to close the gap between high- and low-achieving students. In addition to teaching of basic skills in reading and math, Tier 2 intervention time can also be used to preteach difficult concepts that students will encounter in the core curriculum.

The progress of students receiving Tier 2 support is monitored every other week using short (1- to 3-minute) probes in reading and math. Over the course of the academic year, student progress is regularly monitored to ensure the effectiveness of instruction. Monthly meetings of relevant staff members are held to discuss the progress of struggling students with respect to their inclusion and academic/social skills. If a student does not show progress following the 6- to 8-week instructional support period, staff decide whether to change the intervention(s) being used with that student or add to or supplement the current intervention with additional support.

Teachers should be given professional development opportunities at least twice a year to support the implementation of this type of system. This can include working with a trained special education teachers to co-teach inclusive classrooms. Development opportunities should focus on inclusive education principles and instructional strategies needed by a school or district. Often, this training is provided by trained and experienced local university staff or similar resources.

¹ In defining "most students," schools should set their own target percentages, but 80 percent is a reasonable goal.

A second strategy to enhance the quality of Tier 2 support is to provide coaching/mentoring and technical assistance to teachers (Freeman et al., 2009; Joyce & Showers, 2002; Sugai & Horner, 2010) focused on individual students or more widespread instructional issues. Such support can be provided either by experienced inclusion/Tier 2 school staff or a trained, competent outside resource (e.g., university staff).

Tier 3

As a school prepares to become inclusive and implement a multilevel support system to address the learning needs of all students it serves, it is important to remember that students with more severe disabilities (e.g., moderate to severe intellectual disabilities) will require more advanced approaches and materials than those needed by students with mild disabilities. Often, the level of support needed to access the school and classroom (i.e., physical), learn along with their peers (i.e., social), and access instructional materials (i.e., academic) for such students exceeds the role of a single regular classroom teacher. Students with moderate to severe disabilities will need support from a special education teacher or a teacher's assistant trained to work with such students. A teacher's assistant can be a preservice teacher, parent, or community member who has received training to assist students with disabilities.

It is important to use the following basic practices and principles of Tier 3 intervention.

Maximize time in general education environments. Successful inclusion does not mean that every student must be placed in a regular education classroom at all times. Rather, the goal is for every student to receive the support needed to achieve valued academic and social outcomes in an environment as similar as possible to the general education classroom. Although more time spent in general education settings is valuable, sometimes it may be appropriate to provide support in smaller, more individualized environments. For example, it would not make sense for an entire class to take part in the orientation and mobility instruction needed for a student who is blind. This is especially true for students with moderate to severe disabilities; some of their

instruction should take place only in small groups of students or in one-on-one sessions with an instructor to support their mastery of the basic skills necessary to learn academic content.



Accommodation Tip

When introducing a student with a disability into the classroom, consider using role playing to introduce other students to the experience of being disabled. For example, children could be asked to write with their hands tied behind their backs, to participate in a class with their ears plugged, or to navigate through the classroom in a wheelchair. These exercises can help to reduce stigma, build sensitivity, and break preconceived ideas about individuals with disabilities. However, take care to design and use these activities to not encourage students without disabilities to think that having a disability is "fun" or "funny" or to promote pity for individuals with disabilities. Disability Information Resources provides many ideas and examples for such activities. (<http://www.dinf.ne.jp/doc/english/global/david/dwe002/dwe00249.html>)

Focus on core academic skills within the context of course content. Tier 3 instruction focuses on both the development of core academic skills (e.g., sight word development, decoding, concepts of less and small, and counting) and background content material necessary for the student to access the core curriculum. Teachers delivering instruction at this level must work closely with those providing general education instruction to ensure a good match between small-group intervention content and content being provided in the general education classroom to maximize the effectiveness of this approach.

Provide separate, small-group instruction. Small-group instruction should take place in a quiet area either inside or outside of the student's general education classroom. Lessons should be led by a special education teacher or another educator with a background in disabilities. If delivered by a general educator, the lesson should be developed in consultation or collaboration with a special education staff person.

Provide frequent, high-intensity support sessions. Students receiving Tier 3 support need more frequent and intense instruction (i.e., more repetition and

more reinforcement) to learn optimally. Therefore, it is recommended that support sessions (approximately 20 minutes each) be held three to four times per week, ideally scheduled when the students will not miss critical content being taught in the general education classroom. The extra sessions allow for teachers to move through the curriculum at a pace that is more consistent with students' ability levels. Further, the relatively short sessions are tailored to the limited attention span often displayed by students with disabilities.

Instruct in small groups. Because students receiving Tier 3 support often have a difficult time responding to relevant cues—such as attending to speakers and understanding nonverbal cues, in learning situations—small-group instruction should include no more than two to three students; conversely, it may sometimes be in a student's best interest to conduct the sessions individually. A smaller number of students also allows for instructors to more carefully monitor understanding of skills being taught, provide a greater number of learning trials, offer corrective feedback when needed, and reinforce appropriate student responses.

Provide shared activities and individualized outcomes. Students receiving Tier 3 support may lack the background needed to achieve the same education outcomes as their peers without disabilities. One of the key concepts underlying education inclusion, however, is that students of all ability levels share activities and education experiences, even though the learning objectives of each activity may vary by student (Katz & Mirenda, 2002). Tier 3 interventions should, therefore, focus on supporting students to achieve these personalized outcomes and to better access and understand the basic concepts being taught in the regular classroom. For example, if a class is completing a language arts unit about the role of art in history and students read an article about an important work of art, students with moderate to severe disabilities could focus on learning to decipher and understand new key words in the text with the help of decoding strategies and pictures instead of commanding the full meaning of the article.

Use physical, multisensory learning experiences.

Students with significant cognitive or intellectual disabilities can learn more effectively when they have tactile material to manipulate, coupled with extended periods of practice or learning trials. Teachers instructing students receiving Tier 3 support may find it useful to provide manipulatives and textured materials, as well as alternative examples of the same concept that would not normally be used in the regular classroom.

Facilitate connections between the concrete and abstract.

Although many students with significant disabilities learn concepts more easily when they are taught using tactile objects, the ultimate goal is to facilitate understanding of the concept in a more abstract manner. For example, if a science class is studying fruit-bearing plants, a teacher might take Tier 3 students to a farm where several types of fruit-bearing plants are grown. During the visit, the students would be encouraged to touch, smell, and, if possible, taste the fruit. Additionally, either during the outing or shortly thereafter, it would be beneficial for the teacher to show students photographs of the plants to help them understand that the photo is a representation of the actual plant. Later, photographs can be exchanged for simple picture drawings of plants that will help students understand that the abstract picture, like the photo, stands for or represents the actual object.

Generalize learning to new settings. One of the most challenging tasks for teachers providing instruction to students with significant cognitive or intellectual disabilities is to help them generalize what they have mastered in the initial learning situation to different contexts. An example of this approach would be to take the students to different stores and have them use real money to purchase items. This would teach them math concepts related to currency and how use social skills in their everyday environments.

Individualized Education Plans

Individualized education plans (IEPs) were established in the United States in the 1970s and have since become an integral part of special education strategies in countries around the world (Mariga et al., 2014). IEPs differ from the strategies proposed

in this guide in that they typically first require that a student be identified as having some type of recognized disability. However, because of the important role that IEPs play in the education of students with disabilities, they warrant mention.

IEPs are documents that define the goals specific to a student's development. They focus on academics, social interaction, and sometimes self-care. Having such documents in place allows students to be monitored and measured against their own goals versus those of their peers. Ideally, the student, their parents or caretakers, the general education teacher, special education staff, and other relevant school staff will be involved in the development of an IEP and will meet regularly to monitor the IEP's implementation and effectiveness.

Unfortunately, although IEPs are often mandated as part of education plans that have been adopted by ministries of education in low- to middle-income countries, they have not yet been fully implemented in schools and classrooms. As schools begin to implement inclusive education policies, they should understand national IEP policies and how those policies can be used to comprehensively meet inclusive education objectives.

The American Institute for Research (AIR) conducted a program in Pakistan to integrate disability into broader teacher training programs and develop pilot schools for inclusive education. As part of this project, they promoted direct contact between teachers and families through home visits and weekly meetings with parents at schools. The result was that parents reported improved access to information on disability, which led to more effective advocacy within the community. See <http://www.air.org/resource/inclusive-education-pakistan-experiences-and-lessons-learned-engage-project>.

Planning for School-Wide Adoption of Inclusive Practices and a Multilevel System of Support

For inclusive education to be effective, all students in need of education support must have access to the services described up to this point, including students with disabilities and students without disabilities but who struggle to master academic content. Developing an inclusive education approach can take time and the coordinated efforts of many stakeholders. The end

result, however, is one that will greatly improve the success of teaching and learning within the school.

School staff as well as other stakeholders (e.g., parents) will need to work together over an extended period to plan and create a mutually enriching learning environment. This collaborative approach is necessary not only to ensure that all students are provided with academic support, but also to secure the optimal social environment for students. Students with specific learning disabilities can be difficult to identify in a classroom—particularly a low-resource classroom—and therefore can often mix with their peers socially. However, they are likely to struggle academically.

Conversely, students with more severe physical or sensory disabilities and students with moderate to severe cognitive and intellectual disabilities tend to experience both social and academic challenges. These varying levels of impairment often create the need for a dual set of supports that many teachers find challenging to provide, which in turn prevents students from experiencing all of the positive aspects of inclusion. It is critical for school administrators, teachers, related education support staff, and others in the school community, including parents and families, to reach a consensus about their commitment to creating an inclusive school and the roles that each will play in this process. To encourage this collaborative effort, the following points should be kept in mind.

Planning

- Planning for an inclusive school system with a multilevel support framework should be initiated many months prior to implementation; administrators, teachers, and parents should all be included in the process. Input should be obtained from education and administrative staff about current practices and how to best embed inclusion and a multilevel tiered system of support into the school-wide program. Materials necessary for formative academic assessments (e.g., universal screening and progress monitoring) based on the local curriculum should be identified and/or developed. All parties should agree on scheduling and deciding which supports/resources are

needed for Tier 2 and Tier 3 students, as feasible. Scheduling assessments, small-group instruction, and staff meetings for the entire school year is a critical aspect of the planning process. All education staff should be involved in these meetings and agree upon the final schedule.

- A critical step in starting the planning and implementation process is to identify a school-wide inclusion and multilevel support leadership team composed of school administrators, teachers, support staff, parents, and students with and without disabilities. Before implementing a plan for inclusive education, administrators and education staff should reach consensus on the specific roles and responsibilities each will play in carrying out the process.
- All stakeholders should participate in assessing the degree to which the school and community are ready to support the development of inclusive education and have access to or can develop needed resources. As noted earlier, persons with disabilities and their education needs are viewed differently in various countries. It is critical to work with local leaders to ensure that all practices associated with both inclusive education and the proposed multilevel system of support are implemented in a manner that is culturally sensitive.

Training and Sensitization

- Children in the traditional classroom should be prepared for including a child with a disability in a way that fosters acceptance of diversity. Teachers should address some of the unique needs that children with disabilities may have while emphasizing that disability does not mean inability. For example, teachers can conduct a role play to help children without disabilities better appreciate what it might be like to be disabled. These exercises can include placing blindfolds on a child for a short (age-appropriate) time period during class, and asking them to share how they felt not being able to see those around them. It is also important to build awareness among the parents of students without disabilities concerning disability and inclusive education. It may be important for parents to know that placing a child with a disability in the classroom does not compromise educational opportunities for their peers who are not disabled; on the contrary, inclusion education results in better learning outcomes for everyone.
- School staff should be provided with in-depth training on inclusive education practices related to the most effective uses of Information Communication Technology and Tier 2 and Tier 3 instruction support. This training needs to take into consideration the local context: resource availability, current levels of acceptance of persons with disabilities, and teacher training. With support of the school leadership team, teachers should prepare materials for small-group tiered instruction addressing both the academic and social needs of students.
- Sufficient time should be devoted to teachers, with the help of administrators, to develop supplemental resources that will be needed for effective implementation of both inclusive education and a multilevel system of support. These resources should include supplemental reading and assessment materials.

Gathering Support

- Engaging with families and communities is a key element of promoting and ensuring inclusive education. Parent involvement can promote acceptance of students with disabilities, improved learning, and better classroom behaviors (Edutopia Team, 2000). Teachers should engage parents in their students' learning as much as possible and keep parents informed about classroom achievements and challenges. Parents of students with disabilities also need to participate in community programs to ensure that their children benefit from informal education support. In many countries, there are associations for parents of students with disabilities that work to build awareness and acceptance, educate parents on their rights, and advocate for improved policies and legislation.
- School administrators and education staff should create partnerships with local organizations and interested stakeholders (e.g., universities, community organizations, libraries, parents, socially minded business leaders, and retired teachers) that can provide personnel, materials,

or funds to support the inclusion effort. These partnerships will increase awareness about individuals with disabilities and can lead to possible employment opportunities for those students with disabilities after they exit the school system.

- School administrators, teachers, and other support staff should meet on a monthly basis with the specific goal of discussing and recording all of the outlined aspects of inclusion and what is needed to improve the physical, social, and academic access of individual students to ensure effective learning both during the planning process and implementation. School staff, especially administrators, should also seek opportunities to connect with other schools that are in the process of implementing an inclusive approach, thereby joining the wider community of inclusive education practice. All members of this new community can benefit from sharing implementation ideas and experiences.

Feedback

- Teacher feedback is vital following initial implementation of an inclusive education and multilevel support program. Information regarding both the process of implementation and the perceptions of individuals regarding the outcomes can be gathered through focus groups or by surveys that can be answered anonymously. Survey results can provide valuable information about what did and did not work over the past school year, and will ensure that the opinions of education staff are valued.
- Feedback and brainstorming can also be conducted during meetings at the end of the school year with education staff and community leaders. The goals of these meetings are to review the school's support plan and develop strategies for the next academic year, and to solve problems faced during program implementation.

Conclusion

Including children with disabilities in the classroom does not necessarily need to be expensive or difficult. However, teachers and other school staff need to be familiar with the various modifications of classroom instruction that can be used to ensure that all children, including those with disabilities, can learn and reach their fullest potential. A common misperception is that educating children with disabilities is luxury that can only be achieved in developing countries. Current experiences with inclusive education in low-income countries, however, shows that a simple shift in teaching methods can increase educational opportunities for children with disabilities.

For example, RTI International is currently implementing a project to improve reading instruction in Malawi, funded by the United States Agency for International Development (USAID), and the project is already improving outcomes. In this Early Grade Reading Activity (EGRA) project, RTI has successfully improved the capacity of grade 1–3 teachers to provide fully inclusive quality reading instruction to students. In so doing, the project is improving the learning outcomes of students, increasing parental and community engagement to support student reading, and reducing the repetition and dropout rates in early grades by providing a quality learning environment.

Research proves that educating children with disabilities in the general classroom can be the best option for the children with many types of disabilities, and is often the most economical option for a country (Banks & Polack, 2014). To achieve truly inclusive educational systems, countries must invest in giving teachers and school staff the best methods to teach to all students. We hope that this guide will help educators at all levels to better understand what it means to be inclusive and to break down barriers to implementation. Even in the most resource-challenged environments, inclusion is an important step to providing the best educational opportunities to all students in a classroom, including those who—for whatever reason—struggle to learn.

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Appendix A. Options for Disabilities Testing in Low- and Middle-Income Contexts

Introduction

Some disabilities are more apparent than others and are more readily identifiable. Teachers can readily recognize physical disabilities, such as loss of limbs, loss of mobility, and other impairments that impact gross motor abilities, dramatic vision loss or deafness/hearing loss, and severe cognitive or intellectual disabilities. Within an inclusive education setting, students with identifiable disabilities are welcomed into the classroom, and the strategies proposed earlier in this guide are put into place to allow all students to fully participate in classroom learning. This appendix addresses disabilities that are not immediately noticeable and more difficult to identify.

Even in the most resource-limited classroom, teachers still monitor student progress. For some teachers, monitoring may be as simple as determining which students perform at a higher level—whether through their responses to questions, ability to do assigned work, or performance on tests. Other teachers take a more systematic approach to student monitoring, often through more regular, informal assessments of all students (e.g., systematically asking questions of all students through the course of a lesson or conducting more frequent brief assessments at the end of a unit). Monitoring helps teachers identify students who have vision disabilities, are deaf or hard of hearing, have cognitive or intellectual disabilities, or have other learning disabilities that were not previously identified.

Below, we provide information on resources that teachers in low- and middle-income contexts can use to screen all students in a classroom or to provide additional screening for students who are already suspected of having a disability.

Vision Screening

According to the World Health Organization (WHO), cataracts, refractive errors/low vision, trachoma, onchocerciasis, vitamin A deficiency, and other causes of childhood blindness are responsible for 75 percent

of all blindness globally (World Health Organization, 2005). WHO also notes that approximately 20 percent of the world's children who were blind in 2005 lived in Africa, compared with the 6.6 percent living in the Americas (World Health Organization, 2005).

Fortunately, vision screening can be among the easiest of screenings to administer. WHO has promoted childhood vision screenings internationally for a number of years (Keeffe, Lovie-Kitchin, Maclean, & Taylor, 1996). In fact, WHO tested the usability of this type of screening device by untrained health workers, educators, and community-based rehabilitation workers in 32 countries in the Pacific region, Asia, Africa, and Eastern Europe. It found that untrained administrators in low-income countries were able to successfully use the vision screening tool with children as young as 4 years of age—even with children who did not speak the same language as the tester (Keeffe et al., 1996). The LEA SYMBOLS eye chart is another option particularly useful for young children (<https://www.good-lite.com>). In some cases, it is also possible to repurpose the vision screening tool used by doctors or optometrists in a country. Lions Club International (<http://www.lionsclubs.org>) has also taken great strides to make low-cost screenings available to students and teachers in low-resource settings through the use of simple eye charts and screening protocols similar to those developed by WHO. School staff or community members can be easily trained in the administration of these screening protocols, making student-wide vision screenings possible at all schools. Lions Club International also works with communities to provide eyeglasses and resources for follow-up services.

Another innovative option for addressing the needs of older children with vision impairments relies solely on a child's self-assessment. Child Vision, an initiative of Dow Corning Corporation and the Centre for Vision in the Developing World, has developed low-cost, self-adjustable eyeglasses that wearers can adjust until they can see clearly. These lightweight glasses use a fluid-lens technology and are especially made to

withstand environmentally challenging environments. The glasses rely on the same type of eye chart used by the WHO and Lions Club International, although the child assesses his or her own vision needs and makes all necessary adjustments without assistance from others (<http://www.vdwoxford.org/childvision.>).

Hearing Screening

Although routine hearing screening for children is widespread in high-income countries, low- and middle-income countries still lack low-cost, reliable hearing screening options for children. Examining the outer ear for discharge is something that should be regularly done, but screening for hearing acuity requires specialized equipment and trained testers, which are not always available in low-income contexts.

WHO has recommended that all children be screened at primary school entry using a simple field audiometer. However, certain factors should be taken into consideration when selecting a screening program, including the test conditions within the environment, the availability of equipment and testers, local attitudes toward hearing loss, the level of hearing loss that would be considered a disability, and the potential causes of hearing loss (Gell et al., 1992). WHO recognizes the urgent need to develop low-cost, reliable screening tools and procedures, but also urges that no screening should be done until appropriate follow-up services are available for the children who are diagnosed as deaf or hard of hearing (Gell et al., 1992).

Several studies on hearing screening have been conducted. For example, in rural Bangladesh, it was found that conditioned play audiometry (i.e., the use of behavioral conditioning to get young children to respond to sounds, tympanometry (i.e., examination used to test the condition of the middle ear and mobility of the eardrum), and measuring of otoacoustic emissions (i.e., sounds given off by the inner ear when the cochlea is stimulated by a sound) were effective tests of hearing in children 2 to 9 years of age. These approaches show promise in other low-income countries, but require the availability of precise equipment and trained audiologists, which remains a challenge in many low-income schools

and school districts. Similarly, studies of hearing impairment prevalence found that Nigeria (Fasunla, Samdi, & Nwaorgu, 2013), Kenya (Hatcher et al., 1995), and India (Singh & Kumar, 2010) all relied on clinic, hospital, or health center personnel to conduct the screenings.

Although less rigorous, studies have explored the extent to which parent and teacher reports and questionnaires provide a viable alternative to the more precise but less available screenings described earlier. WHO has recommended the use of questionnaires as an efficient, low-cost alternative for identifying hearing loss among children, particularly in developing countries (2010). This approach was analyzed by Gomes and Lichtig (2005), who evaluated a parent report questionnaire by nonprofessionals to identify hearing loss in preschool children in a poor community in Brazil. They found that the questionnaires matched professional screenings 77 percent of the time, although additional refinements were needed to improve reliability. However, in a survey of research published between 1980 and 2013, including studies conducted in Kenya, Nigeria, Brazil, and Zimbabwe, only one study during the examined period showed that questionnaires could be an effective method for hearing screening in school-aged children (Muñoz, Caballero, & White, 2014). This study concluded that more development and research is needed before questionnaires can be effectively used to measure hearing loss, especially given the contextually diverse circumstances in which a given questionnaire may be used (Muñoz et al., 2014). Hesperian's *Helping Children Who Are Deaf* also provides guidance for a simple hearing test that could be conducted by teachers in the classroom (http://en.hesperian.org/hhg/Helping_Children_Who_Are_Deaf).

Cognitive Dysfunction and Intellectual Disabilities

In low- and middle-income settings, screening for cognitive dysfunction and/or intellectual disabilities is uncommon. Maulik and Darmstadt (2007), however, have explored the types of cognitive and intellectual screening methods that have been used in low- and middle-income countries and found that these screening tools were generally standardized or

adapted versions of the American Behavior Scale, the Vineland Adaptive Behavior Scale, Griffiths's Scale of Mental Development, or the Denver Development Screen Test. A modified version of the Ten Questionnaire (TQ), which was developed as part of the International Pilot Study of Severe Childhood Disability, was found to be useful in identifying more severe forms of cognitive delay but was less suitable for mild-to-moderate degrees (Maulik & Darmstadt, 2007).

Overall, the TQ has emerged as the predominant measure of child disability in low- and middle-income countries (UNICEF, 2008). The TQ screen was designed to be used in resource-poor regions and across diverse cultural settings. It includes questions about general functional abilities, developmental milestones, and screens for child impairment or inability in the realms of speech, cognition, hearing, vision, motor/physical, and seizure disorders (UNICEF, 2008). The TQ was used as part of the

third round of the Multiple Indicator Cluster Survey (MICS3) administered from 2005 to 2008 to screen 205,674 children in 20 countries; it proved to be a credible, low-cost means of screening for disabilities. Its validity and reliability have been confirmed by other research as well, and was proven valid as a measure of moderate to severe neurological impairment in Kenya (Mung'ala-Odera et al., 2004), elsewhere in Africa (Lorenz & Boivin, 2013), and Bangladesh (Zaman et al., 1990).

Although the TQ is not a perfect measure, the absence of other screening options that can be supported in low-resource contexts makes it an appealing option for schools, teachers, and parents to consider. It should be noted, however, that the test should be conducted in the student's native language and that those children who have language-related disabilities or who are deaf or hard of hearing may receive a skewed result because of challenges in understanding the language being used to test.

Appendix B. Checklists for Evaluating a School and Classroom for Inclusiveness of Students with Disabilities

The process of developing an inclusive education setting can take time and the efforts of many stakeholders. The following checklists may be useful tools for initial evaluations of school settings to determine the extent to which they are already inclusive. These checklists are illustrative and not comprehensive, and they should not be considered the only tools for evaluating learning environments. We hope, however, that they can be used to help initiate dialogue about what inclusive elements already exist in a learning environment and what elements may still be lacking.

Users of these checklists can be teachers, school administrators, district-level education staff, or other education stakeholders. To promote their use by a variety of stakeholders, the checklists have been developed using simple, nontechnical language. The checklists are to be used as follows.

Conduct an inventory of the school or classroom, observe teachers as they teach classes, and review teacher and student curricular materials. In the following checklists, indicate whether the question—predominantly or for the most part—can be answered Yes or No. Again, answer each question depending on whether the resource or characteristic is in place for the most part. Even if a question cannot be answered Yes all of the time, if it can be answered Yes most of the time, give a point for that question.

Once all questions have been answered for a given checklist, tally up the Yes points to get a total number of points for that checklist. Use the rubric at the bottom of the checklist to determine whether the classroom or school environment overall supports the learning of all students, including those with disabilities. If it appears that the environment does not support the learning of all students, the checklist can offer recommendations for modifying the environment to support inclusion.

Checklist for Modifying the Physical Environment

Question	Yes	No
Are supports (e.g., eyeglasses, crutches, wheelchairs, or other devices for navigating through the class or school environment) provided to students who need them?	Yes	No
Are the classroom and school environment set up in a way that enables all students to move around freely?	Yes	No
Is seating in the classroom arranged so that each student can see and hear, taking into consideration each student's specific needs, and so that designated peer-support students are seated next to each other?	Yes	No
Are students with vision impairments given a physical orientation to their class and school environment?	Yes	No
Is the classroom layout kept the same every day to make it easier for students with vision impairments to have full access to the environment?	Yes	No

Checklist for Modifying Classroom Management Strategies

Question	Yes	No
Are students, especially those with disabilities, given breaks as needed throughout the school day?	Yes	No
Are students, especially those with disabilities, allowed to freely move throughout the classroom during a lesson, as needed, to help them stay focused?	Yes	No
Are students given written instructions and explanations of concepts on paper or on a slate to help them better understand the material?	Yes	No
For students who struggle to write on paper or slates, are they allowed to write in the air or on chalkboards, use different types of writing supports, or use peer aids?	Yes	No
Are daily calendars or visual schedules used to provide reminders to students about what will occur during the school day?	Yes	No
Are students, especially those with disabilities, given extra time to complete assignments or tests, as needed?	Yes	No
Are students with moderate to severe disabilities paired with peers who are not disabled to support their learning?	Yes	No
Are students allowed to respond to questions in their preferred communication style, even if it requires the teacher to learn some sign language or other communication styles?	Yes	No
Is the teacher flexible about requiring the use of proper grammar and other language standards for students with disabilities?	Yes	No
Are students with disabilities given respectful support, as needed, by their teachers and peers?	Yes	No

Checklist for Ensuring Social Inclusion

Question	Yes	No
Does classroom instruction respect and include a specific focus on diversity in all ways, highlighting the similarities between students with and without disabilities rather than their differences?	Yes	No
Are small groups or collaborative learning strategies used in the classroom on a regular basis?	Yes	No
Are students with and without disabilities given full access to areas where students eat, play, and socialize?	Yes	No
Are strategies in place that are designed to bring students with and without disabilities together outside of the school setting?	Yes	No
Are students with disabilities engaged in developing adaptations to games, activities, and other social activities?	Yes	No
Are inclusive service learning programs used to identify community problems and to identify and implement service activities to solve these problems?	Yes	No
Are students given necessary supports to assist them in communicating socially with their peers?	Yes	No

Checklist for Including Best Instructional Practices

Question	Yes	No
Is instruction organized and structured to include overviews and reviews of the content being taught?	Yes	No
Is instruction clearly stated and straightforward?	Yes	No
Are effective learning strategies modeled, such as bringing background knowledge to the lesson, monitoring a student's understanding, and advising students on how to stay on task?	Yes	No
Are multiple learning modalities (such as providing content using visual, hearing, or touch methods) used for instruction, practice, and assessment?	Yes	No
Are students given sufficient time for practice and is information repeated, as needed, to ensure full understanding by all students in the class?	Yes	No
Are formative assessments used to monitor progress and identify students who need additional support to master a lesson or set of lessons?	Yes	No
Are all students are participating equally in the learning experience and are they evaluated fairly?	Yes	No
Are strategies used to maximize student attention to the most important issues and aspects of learning (for example, explicitly pointing out critical concepts, words, or ideas)?	Yes	No
Is simple language used when giving instructions so that they are as understandable as possible?	Yes	No
Are tactile objects and manipulatives used to help students learn new concepts?	Yes	No
Do classes introduce one activity at a time, with a clear breaks between lessons or assignments?	Yes	No
Is activity-based learning used within the different lessons?	Yes	No
Are tasks linked to students' real-life experiences to give them meaning?	Yes	No
Are multiple practice opportunities provided to enable students to repeat tasks in a variety of ways?	Yes	No
Do classes use different strategies that encourage the participation of students with low vision, (e.g., giving clear, verbal explanations before, during, and after tasks; asking students to identify themselves when speaking; writing in large, clear print on the board; and reading what is written on the board in a loud, clear voice)?	Yes	No
Do school staff—including teachers of general education classrooms and special education teachers--work together to create an enriching environment for all students?	Yes	No

Checklist for Using Assistive Technologies

Question	Yes	No
If high-tech assistive devices (e.g., computers and tablets) can be obtained, are they made available to all students who need them?	Yes	No
Are low-tech assistive devices (e.g., magnifying glasses) made available to students who need them?	Yes	No
If classrooms have assistive devices, are all students trained to use them to support collaboration with their peers?	Yes	No
Are students with disabilities engaged in discussion about what assistive devices would be useful?	Yes	No

Checklist for Adopting School-Wide Inclusive Practices

Question	Yes	No
Does the school have a plan for a multilevel system of support for all students, including those with disabilities?	Yes	No
Does the school have a multilevel support leadership team?	Yes	No
Do all stakeholders (e.g., students with disabilities, parents, communities) participate in determining whether a school is inclusive and how to enhance the inclusiveness of the school?	Yes	No
Are school staff adequately trained in inclusive education practices?	Yes	No
Are teachers given sufficient time and support to develop supplemental resources that may be needed?	Yes	No
Are school administrators trained adopt school-wide inclusive practices and to support teachers in adopting classroom inclusive practices?	Yes	No
Has the school reached out to learn from other schools that have embraced inclusive education, and to join an inclusive education community of support?	Yes	No
Do school staff and administrators meet regularly to discuss inclusion plans and progress and to put new plans in place?	Yes	No
Are parents, communities, and students with and without disabilities engaged to ensure that students benefit from informal education support as well as formal instruction?	Yes	No

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