Building Inclusive Schools:

Communication Accessibility Strategies for Education Leaders

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Executive Summary

Communication accessibility and inclusion are urgent challenges for U.S. schools. This white paper guides K–12 and postsecondary administrators in creating authentically inclusive learning environments for students with diverse abilities — including Deaf and hard-of-hearing (DHH) students, English language learners (ELLs), students with auditory processing disorder (APD), neurodivergent students, nonverbal students, and blind/low-vision students.

In U.S. public schools, about 7.5 million students—roughly 15% of total enrollment—receive special education services under the Individuals with Disabilities Education Act (IDEA (NCES). In postsecondary education, some 21% of postbaccalaureate students reporting having a disability (NCES). An estimated one in five children nationwide are neurodivergent, including those with ADHD, autism, or learning differences (Understood). Additionally, about 10.6% of students are identified as English Learners (ELs) (NCES).

With a chronic shortage of special education teachers, administrators must prioritize scalable communication accessibility solutions — from captioning and translation to assistive listening devices, sign language, and visual supports (ASHA). Extending these accommodations beyond the classroom ensures all students can thrive academically and socially.

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Introduction and Background

Inclusive education has been a cornerstone of educational policy and research since the late 1980s, emphasizing schools' responsibility to expand access, participation, and opportunity for all learners (UNESCO). While laws such as the Individuals with Disabilities Education Act (IDEA), Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act (ADA) set essential protections, true inclusion requires more than compliance. It demands a proactive approach — one that removes communication barriers before they limit learning, engagement, or belonging.

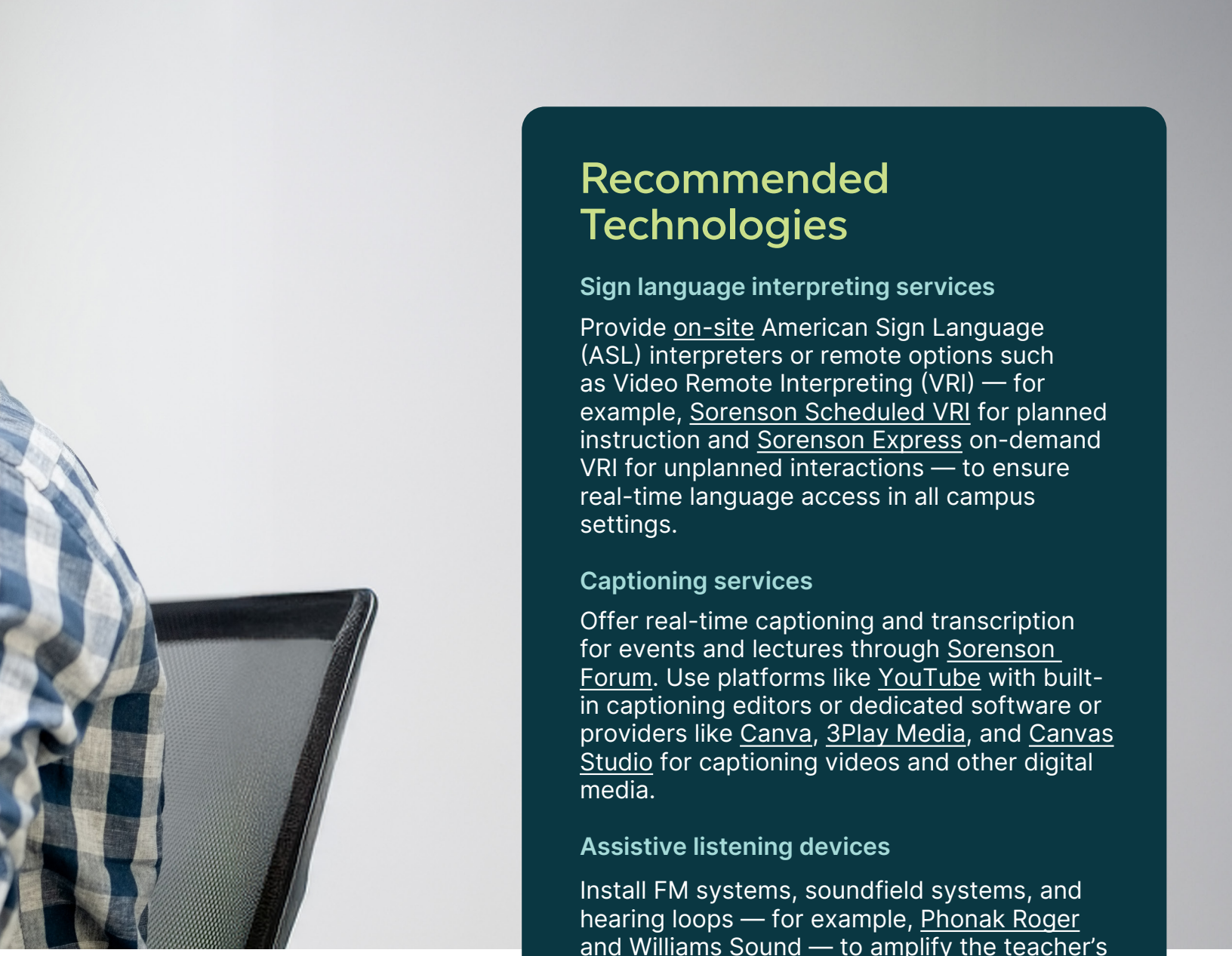
This white paper examines how schools and universities can create that culture of accessibility by addressing the communication needs of diverse student populations. It highlights the barriers and solutions that shape learning for **Deaf and Hard-of-Hearing students, English Language Learners, students with auditory processing or sensory differences, neurodivergent and nonverbal students, and those who are blind or have low vision.**

Across these groups, a consistent theme emerges: communication access is foundational to equitable education. The following sections outline the challenges these students face, the inclusive practices that improve understanding and engagement, and the technologies — such as interpreting, captioning, translation, and assistive listening systems — that help every student participate fully in academic and social life.

Deaf and Hard-of-Hearing Students

Challenges

DHH students face significant auditory barriers in classrooms designed primarily for spoken communication. Each student's needs are unique, requiring an Individualized Education Plan (IEP) to define support, communication modes, and goals. Without consistent access to communication, students may struggle to follow instruction, engage socially, and participate fully in academic life.



Optimization Strategies

- Provide sign language interpreting, captioning, and/or assistive listening devices.
- Use visual schedules and written instructions.
- Foster peer support and inclusive group activities.

Recommended Technologies

Sign language interpreting services

Provide on-site American Sign Language (ASL) interpreters or remote options such as Video Remote Interpreting (VRI) — for example, Sorenson Scheduled VRI for planned instruction and Sorenson Express on-demand VRI for unplanned interactions — to ensure real-time language access in all campus settings.

Captioning services

Offer real-time captioning and transcription for events and lectures through Sorenson Forum. Use platforms like YouTube with built-in captioning editors or dedicated software or providers like Canva, 3Play Media, and Canvas Studio for captioning videos and other digital media.

Assistive listening devices

Install FM systems, soundfield systems, and hearing loops — for example, Phonak Roger and Williams Sound — to amplify the teacher's voice and reduce background noise.

Speech-to-text applications

Use mobile and desktop tools like Ava and Otter for instant transcription of small-group discussions, peer interactions, and informal conversations.

Visual alert systems

Implement flashing lights or vibrating devices to signal school bells, alarms, and announcements.

As one university VP of Student Services shared, "VRI enables us to provide interpreting services for classes, parent meetings, and extracurricular events even when an on-site interpreter is not available." This flexibility is crucial for meeting diverse student needs.

English Language Learners

Challenges

ELL students and families often struggle to navigate English-dominant school systems, affecting comprehension and engagement. ELL students graduate at lower rates than fluent English speakers (National Center for English Language Acquisition). Family members with limited English proficiency may also find it difficult to support their children's education or communicate effectively with teachers — and family involvement is a key factor in academic success (Springer).

Optimization Strategies

- Offer bilingual education and dual immersion programs.
- Use visual aids and translated spoken and written materials.
- Encourage family participation through multilingual communication.

Recommended Technologies

Multilingual translation and interpreting services

Use human spoken-language interpreters for critical or high-stakes conversations such as parent-teacher meetings or individualized education planning. For classroom instruction, lectures, and large events, Sorenson Forum provides AI-powered, real-time translation in 25+ languages for scalable, affordable coverage. For quick, one-on-one communication, general translation tools such as Google Translate can be effective.

Translated documents and multimedia

Prioritize translating core lesson materials, key instructions, multimedia that reinforces learning, and essential communications with families. Vendors such as CQ Fluency can provide scalable translation support for these high-impact resources. For video and digital media, use postproduction captioning through YouTube, Canva, Canvas Studio or 3Play Media.

Bilingual education software

Implement programs such as Rosetta Stone, Duolingo for Schools, and Imagine Learning to support language acquisition.

Family engagement platforms

Use applications such as TalkingPoints and ClassDojo to enable multilingual communication between home and school.

Neurodivergent Students

Challenges

Neurodivergence includes attention-deficit/hyperactivity disorder (ADHD), dyslexia, autism spectrum disorder (ASD), Tourette syndrome, and obsessive-compulsive disorder (OCD) (Cleveland Clinic). These students may experience anxiety, difficulty focusing, or trouble following routines.

Optimization Strategies

- Create predictable routines and visual schedules.
- Break down complex information into smaller steps.
- Allow flexible participation using written, visual, or audio formats.

Recommended Technologies

Flexible communication platforms

Use Padlet and Seesaw to allow students to respond using text, audio, or video, supporting diverse expression styles.

Visual scheduling and organization applications

Implement tools such as Choiceworks, Time Timer, and Google Calendar for visual routines and reminders.

Text-to-speech and speech-to-text software

Provide tools such as Microsoft Immersive Reader and Kurzweil 3000 to support reading and writing challenges.

Live captioning and lecture transcripts

Use Sorenson Forum to provide real-time captions during lectures and events, and offer transcripts afterward for review.

Sensory-friendly classroom tools

Provide noise-canceling headphones, fidget devices, and adjustable lighting to reduce sensory overload.

Learning management systems with accessibility features

Use platforms such as Google Classroom, Canvas, and Schoology to allow customization of assignments and communication methods.

Students with Auditory Processing Disorder

Challenges

Auditory processing disorder (APD) affects 3–5% of school-aged children, making it difficult to process spoken language, especially in noisy environments (KidsHealth). Students may have trouble distinguishing between similar sounds or determining where sounds originate.

Optimization Strategies

- Minimize background noise.
- Provide written instructions and visual cues.
- Offer preferred seating near the teacher.

Recommended Technologies

Assistive listening devices

Use FM systems and soundfield amplification such as Phonak Roger and Lightspeed Redcat to clarify speech and minimize background noise. The speaker wears a microphone transmitter that sends their voice directly to a receiver worn by the student or to speakers positioned around the room, ensuring even sound distribution for the entire class.

Captioning and transcription tools

Provide real-time captioning and transcription through Sorenson Forum, and apply postproduction captions with Canvas Studio or 3Play Media. These tools give students a visual reference during lectures and allow them to review material afterward.

Text-to-speech (TTS) software

Programs such as Speechify, Microsoft Immersive Reader or Read&Write by Texthelp can read text aloud while students follow along, reinforcing learning through both auditory and visual channels.

Classroom sound management

Add acoustic panels and microphones to reduce background noise, or provide students with noise-canceling headphones to support focus during independent work.

Nonverbal Students

Challenges

Nonverbal students may have neurological, hearing, or physical disabilities that impact communication and self-expression.

Optimization Strategies

- Use Augmentative and Alternative Communication (AAC) tools such as speech-generating devices and communication boards (ASHA).
- Foster peer support and inclusion.
- Employ multimodal communication (visual, written, and audio).

Recommended Technologies

Speech-generating devices (SGDs)

Provide hardware like Tobii Dynavox and PRC Accent or install AAC apps such as Proloquo2Go, TouchChat, and Avaz on tablets. These tools let nonverbal or minimally verbal students express themselves through symbols, pictures, or text converted to speech, supporting participation in class and daily interactions.

Visual communication platforms

Use Boardmaker and GoTalk NOW to create symbol- or text-based boards, visual schedules, and classroom materials. These visuals help students understand routines and instructions.

Text-to-speech (TTS) software

Offer Speechify, Microsoft Immersive Reader or Read&Write by Texthelp to convert written text into spoken words. TTS supports students with reading or vision challenges by improving comprehension through auditory reinforcement.

Low-tech AAC tools

Supply whiteboards, picture cards, and printed communication boards for quick group interaction.

Blind and Low-Vision Students

Challenges

Students with blindness or low vision may struggle to access written materials, visual content, and multimedia, limiting participation and comprehension.

Optimization Strategies

- Provide materials in accessible formats (Braille, large print, digital text compatible with screen readers).
- Offer audio descriptions and verbal explanations for visual content.
- Ensure classroom navigation is consistent and safe.

Recommended Technologies

Screen readers and magnification software

Use JAWS, NVDA, or ZoomText to make digital text and interfaces accessible. These tools read on-screen content aloud or enlarge it for easier viewing, helping students independently navigate lessons, assignments, and online materials.

Braille displays and embossers

Implement refreshable Braille displays and Duxbury Braille Translator to produce tactile materials. These technologies allow students who read Braille to access coursework in real time and create written assignments in Braille.

Digital learning platforms with accessibility features

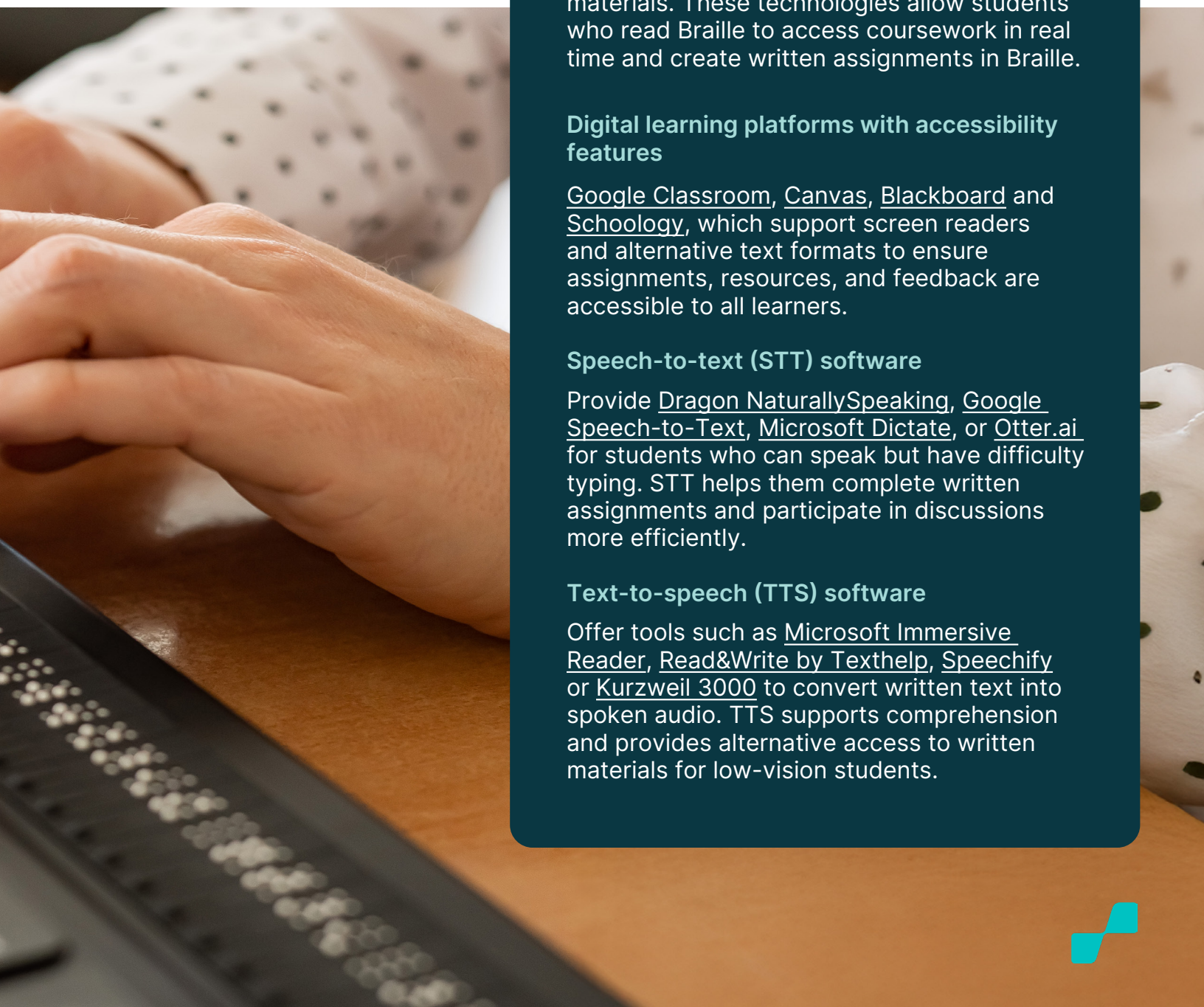
Google Classroom, Canvas, Blackboard and Schoology, which support screen readers and alternative text formats to ensure assignments, resources, and feedback are accessible to all learners.

Speech-to-text (STT) software

Provide Dragon NaturallySpeaking, Google Speech-to-Text, Microsoft Dictate, or Otter.ai for students who can speak but have difficulty typing. STT helps them complete written assignments and participate in discussions more efficiently.

Text-to-speech (TTS) software

Offer tools such as Microsoft Immersive Reader, Read&Write by Texthelp, Speechify or Kurzweil 3000 to convert written text into spoken audio. TTS supports comprehension and provides alternative access to written materials for low-vision students.



Building the Inclusive Classroom

Creating an inclusive classroom requires both multipurpose accessibility tools and a culture that values diversity. By recognizing different learning needs, educators can create environments where all students succeed academically and socially.

Universal Design for Learning (UDL)

Design learning environments around Universal Design for Learning (UDL) principles to proactively support all students (Cornell University). UDL promotes flexibility, engagement, and multiple methods of demonstrating knowledge.

Practical Strategies:

- Offer materials in text, audio, video, and interactive formats.
- Allow flexible demonstrations of knowledge (writing, oral, or visual projects).
- Incorporate polls and gamified learning for engagement.
- Use adjustable lighting, quiet spaces, and flexible seating.
- Offer varied assessment formats to reduce barriers.
- Integrate tools from the “Technology and Services Overview”section of this guide for practical application.
- Foster peer mentoring and buddy systems to support students with disabilities.
- Use flexible classroom layouts and seating to accommodate diverse needs.
- Encourage student voice in accessibility planning through surveys and advisory groups.
- Integrate accessibility topics into school-wide assemblies, newsletters, and professional development.

Tip for administrators: UDL is not a one-time setup. Regularly review materials, layouts, and technologies to meet evolving student needs. Check out the CAST UDL guidelines and resources here.


subject test
math start time
12:20

Technology and Services Overview

Modern accessibility blends human services and technology. Schools can deploy these tools across classrooms, lectures, and school-wide events:

Category	Recommended Use	Key Tools / Examples	Student Populations Benefited
On-site Interpreting	High-stakes or nuanced communication: parent meetings, classes, large events	Sorenson ASL Interpreters, Spoken-language interpreters	DHH, ELL, Families
Video Remote Interpreting (VRI)	Scheduled interpreting for classes, meetings, and events. On-demand interpreting for impromptu conversations anywhere on campus.	Sorenson Scheduled VRI and Sorenson Express (on-demand) for ASL	DHH, ELL, Families
Captioning & Transcription	Real-time captions and transcripts for lectures and events. Postproduction captions for media. Postproduction captions for media.	Live captioning: Sorenson Forum Postproduction: 3Play Media, Canvas Studio, YouTube, Canva	DHH, ELL, APD, Neurodivergent, Families
Multilingual Translation & Interpreting Visual Tools	Classroom instruction, family engagement, one-on-one communication Interactive lessons, infographics, diagrams	Sorenson Forum for groups, Google Translate for 1:1	ELL, DHH, Families
Visual Tools	Interactive lessons, infographics, diagrams	Canva, Boardmaker, Nearpod	ELL, Neurodivergent, Nonverbal, DHH
Speech-to-Text / Text-to-Speech	Discussions, reading support, writing assistance	Microsoft Immersive Reader, Otter.ai, Ava, Dragon NaturallySpeaking, Speechify, Read&Write by Texthelp	DHH, APD, Neurodivergent, Nonverbal, Blind/Low Vision
Assistive Listening Devices	Amplify teacher's voice, reduce background noise	Phonak Roger, Williams Sound, Lightspeed Redcat	DHH, APD
Screen Readers & Magnification	Access written and digital content	JAWS, NVDA, ZoomText	Blind/Low Vision
Brialle Displays & Embossers	Read and produce Braille materials	Refreshable Braille displays, Duxbury Braille Translator	Blind/Low Vision
Learning Management Systems	Deliver assignments and materials in accessible formats	Google Classroom, Canvas, Schoology, Blackboard, Seesaw	All profiles, especially Blind/Low Vision
Speech-Generating Devices (SGDs) & AAC Apps	Support nonverbal communication	Tobii Dynavox, PRC Accent, Proloquo2Go, TouchChat, Avaz	Nonverbal, Neurodivergent
Visual Communication Platforms	Symbol/text-based boards, visual schedules	Boardmaker, GoTalk NOW	Nonverbal, Neurodivergent
Organization & Scheduling Apps	Visual routines, reminders	Choiceworks, Time Timer, Google Calendar	Neurodivergent, APD
Family Engagement Platforms	Multilingual home-school communication	TalkingPoints, ClassDojo	All profiles, Families

Implementation Roadmap for Accessibility Initiatives

To move from awareness to action, school administrators need a clear, step-by-step process for improving communication accessibility. The following roadmap and decision framework provide practical guidance for assessing needs, prioritizing solutions, and scaling accessibility initiatives in your institution.

Implementation Roadmap

- **Assess Needs:** Conduct an accessibility audit using surveys, focus groups, and data analysis to identify gaps for each student population. Review IEPDs and 504 plans to ensure all mandated accommodations are being met and to identify additional needs for compliance.
- **Set Priorities:** Use the technology chart to identify high-impact solutions for your school's demographics and resources. Prioritize solutions that address compliance requirements under IDEA, Section 504, and ADA.
- **Engage Stakeholders:** Form an accessibility task force including educators, families, and students to guide decision-making. Include special education staff and compliance officers to ensure all legal obligations are considered.
- **Plan Funding:** Explore grants, partnerships, and budget reallocations to support technology and training investments. Consider funding sources earmarked for compliance with federal and state accessibility mandates.
- **Pilot Solutions:** Start with a small-scale rollout (e.g., captioning for assemblies, AAC devices for select classrooms) and gather feedback. Monitor pilot programs for compliance with IEPDs and legal standards.
- **Train Staff:** Provide ongoing professional development on accessibility tools, inclusive practices, and UDL. Include training on legal compliance, documentation, and IEPD implementation.
- **Monitor & Adjust:** Use data and feedback to refine strategies, expand successful pilots, and address new challenges. Regularly review compliance with IEPDs and update practices as regulations or student needs evolve.
- **Scale Gradually:** Expand successful pilots and adjust based on feedback and outcomes. Document all changes and ensure reporting systems are in place to track progress and show ongoing compliance with regulations.

By integrating IEPDs and compliance into your roadmap and decision framework, you ensure that accessibility efforts are not only strategic and sustainable, but also legally sound and responsive to individual student needs. Regular review and adaptation will help maintain momentum and maximize the impact of your accessibility initiatives.

Building a Culture of Accessibility: Policy and Leadership Strategies

Creating a truly accessible school environment starts with leadership and policy. When administrators set clear expectations and model inclusive practices, accessibility becomes part of the school's everyday culture — not just a compliance checkbox. These strategies provide the framework and guidance necessary for creating an inclusive environment where accessibility is prioritized at every level.

- Update school policies to require accessibility in all digital and physical learning environments.
- Include accessibility goals in strategic plans and annual reports.
- Designate an accessibility coordinator or team to oversee implementation and compliance.
- Foster a culture of inclusion through regular communication, recognition of accessibility champions, and student-led initiatives.
- Offer ongoing training through the National Center on Accessible Educational Materials.
- Promote empathy and peer inclusion through school initiatives.
- Collaborate with families on tailored IEPs and support plans.
- Integrate tools and guidelines from CAST to enhance inclusion.
- Use the National Center on Disability and Access to Education (NCDAE) accessibility resources to make classroom materials universally accessible.
- Ensure clubs, sports, and events include accessible participation options to build belonging and social-emotional growth.

Transform Your Classroom Today

The future of educational equity depends on inclusive design. Administrators can take immediate steps by combining technology and human expertise to empower learners across all abilities.

Take the next step:

Book a free consultation with Sorenson accessibility experts

(800) 659-4783

sales@sorenson.com

BOOK ONLINE

Schedule your meeting

About Sorenson Communications

Sorenson Communications is a global leader in accessible communication, combining patented technology with human-centered services.

Our offerings include:

- Call captioning and video relay services
- Video remote and in-person ASL interpreting
- Real-time translation and captioning

With more than 140 million conversations facilitated annually, Sorenson advances communication accessibility in education, healthcare, and public services. As a portfolio company of Ariel Alternatives, Sorenson also prioritizes social impact and environmental responsibility.

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