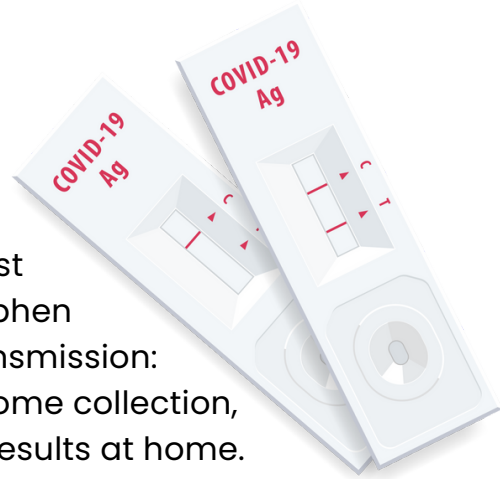


ACCESSIBILITY

Across Learning Environments



From Available to Accessible



When the Food and Drug Administration (FDA) approved the first at-home test for COVID-19 in November 2020, FDA head Dr. Stephen Hahn heralded its importance in turning the tide of disease transmission: While COVID-19 diagnostic tests have been authorized for at-home collection, this is the first that can be fully self-administered and provide results at home. This new testing option is an important diagnostic advancement to address the pandemic and reduce the public burden of disease transmission.

In the weeks and months that followed, agencies focused on key barriers to leveraging the power of the home tests, including distribution and availability, ensuring proper use of the tests, and debunking myths around false positives or false negatives.

But one major barrier went unnoticed by most people: the tests were inaccessible to many individuals with disabilities, particularly the visually impaired.



Consider the situation for Christy Smith and her husband, who are both blind. As reported in *The New York Times*, when her husband developed a sore throat, stuffy nose, and fever in fall 2021, they were unable to find out if he had COVID. They could not drive to a local drug store or distribution site to retrieve a test, and even if they had been able to get one delivered to the house, they wouldn't have been able to use it, as most tests came with instructions in multiple languages but not braille.


The processes required to use the tests also posed other problems: users had to deftly drop collected liquid samples onto small openings in test strips, and the results were displayed visually. Smith told *The New York Times*, "Not all of us have access to somebody sighted to help with things on a regular basis. It's kind of a mix of frustration and just feeling a bit helpless."

This high-stakes example illustrates the difference between availability and accessibility. As with so many other barriers we faced during COVID, people managed work-arounds by using video apps such as [Be My Eyes](#) and [Aira](#). **But what if instead of putting the onus for overcoming barriers on the individual, we focus on minimizing barriers in the initial design? That's the work of accessibility.**

Accessible Education

A joint letter from the U.S. Department of Justice and the U.S. Department of Education issued in 2010 explained that for educational materials to be accessible, a person with a disability must be able to **“acquire the same information, engage in the same interactions, and enjoy the same services”** in **“an equally integrated and equally effective manner, with substantially equivalent ease of use”** as a person without a disability.

The National Center on Accessible Educational Materials (AEM) translates this definition into **three simple questions**:

- 
- 1) *To whom is it accessible?*
 - 2) *Under what conditions?*
 - 3) *For which tasks?*

Taken together, the answers to these three questions recognize that “accessibility is shaped by what we need to do, our interactions with the environment, and our personal preferences.”

In terms of educational materials, AEM groups accessibility into four areas:



Accessible educational materials are print- and technology-based educational materials, including printed and electronic textbooks and related core materials that are designed or enhanced in a way that makes them usable across the widest range of learner variability, regardless of format (e.g., print, digital, graphic, audio, video).



Accessible formats provide the same information in another form to address the barriers text-based materials can present for some learners. Examples of accessible formats include audio, braille, large print, tactile graphics, and digital text conforming with accessibility standards.



Accessible technologies are hardware devices and software that provide learners with access to the content in accessible digital materials. These technologies are designed to be flexible and provide supports that benefit everyone – they are universally designed.



Assistive technologies are designed to address specific barriers learners with disabilities may face when they interact with their materials. Examples of assistive technology include text-to-speech, screen readers, and speech recognition. Assistive technology services assist learners with disabilities in selecting, acquiring, and using the assistive technologies that are the best match for them.



Designing for Accessible Content

Across Learning Environments

Many aspects of accessibility must be addressed at the school and district levels, such as purchasing educational materials in multiple formats (e.g., print and e-textbooks). However, now more than ever before, teachers and students can develop or secure resources and tools to increase accessibility.

Let's start with the development of accessible educational materials.

Teacher-developed content is essential to quality education.

Whether adapted from another source, born of your own experience, or curated from multiple sources, the content you provide students needs to be accessible.

So how do you do that?

First, consider going digital. The Web Accessibility Initiative has been working for decades to help make sure that digital content on the web is as accessible as possible for all users and has created the Web Content Accessibility Guidelines (WCAG), an international standard for making web content accessible. The organization developed a set of standards that is regularly updated, but the standards boil down to four key content development principles that form the **acronym POUR**.



P

Perceivable

What it is: Content that all of your students can perceive through sight or sound (Note that assistive technologies are required to move beyond sight and sound.)

How to achieve it:

- Add text descriptions to your images.
- Include closed captions and transcripts.
- Provide sufficient color contrast.
- Do not use color alone.
- Make your text readable and legible.

O

Operable

What it is: Content that will help all students navigate the information independently using their preferred tools

How to achieve it:

- Provide a clear structure with headings.
- Create descriptive links.
- Check for keyboard accessibility.
- Provide sufficient time.
- Avoid content that flashes.

U

Understandable

What it is: Content that helps your students understand a consistent and predictable design

How to achieve it:

- Provide clear directions.
- Aim for consistency.
- Use plain language.
- Identify the language.

R

Robust

What it is: Content that is "evergreen" in that it will work with current and future technologies, including assistive technologies

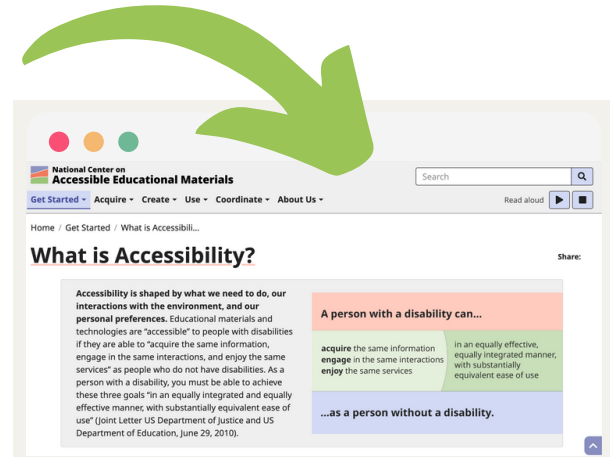
How to achieve it:

- Provide descriptive metadata.
- Perform an accessibility check.
- Test for accessibility with people.

Source: [*Designing for Accessibility with POUR*](#)

But wait! How do I add text descriptions to my images? What is keyboard accessibility? What is metadata and do I have to buy it on a cryptocurrency exchange???

Don't worry! The [AEM website](#) provides teachers with simple-to-use instructions on how to achieve POUR. We recommend exploring the webpage [*Designing for Accessibility with POUR*](#) to learn more about each of the "how to achieve it" strategies in the above graphic.



Leveraging the Power of TALE to Increase Accessibility

When we talk about teaching across learning environments (TALE), we are describing two different – but interrelated – practices. The first is moving across learning environments: moving between in-person, remote, hybrid, etc. The second is integrating teaching strategies across learning environments: using web-based tools within the in-person classroom, flipping instruction to use web-based resources for content-heavy instruction, and focusing on tactile learning in person, etc. To increase accessibility to learning for all of our students, the second aspect of TALE is particularly valuable.

Let's consider three scenarios to see how planning for accessible learning can be portable across learning environments.



Scenario 1: Peter has significant hearing loss. When his teacher uses videos, they provide the following to ensure Peter can access and interact with the content:

- Closed captioning is displayed as he views the video.
- A transcript of the audio is provided.
- Directions for any assignments are provided in writing.

This works in: remote, hybrid, in-person



Scenario 2: Jessie has a learning disability with specific needs in the area of reading decoding. Her teachers provide the following to assist her in accessing grade-level text:

- Alternative text on the same topic content at the student's reading level
- Use of text-to-speech software
- Teacher recording of text
- Embedded links to dictionary/thesaurus or videos
- Copy and paste text into [rewordify.com](https://www.rewordify.com), where content will be reworded to a more accessible Lexile level
- Podcasts

This works in: remote, hybrid, in-person



Scenario 3: Korie's visual impairment impacts their access to text on a screen. Their teacher provides tools they can use in the classroom or wherever they are accessing the content, including the following:

- Large print enhancer
- Contrasting background and font choices
- Audio description of materials, such as VoiceOver
- Speech-to-text and text-to-speech software
- Podcasts


This works in: remote, hybrid, in-person

The Importance of Explicit Instructions

Older students may be able to manage their movement across learning environments more independently than younger students who are more dependent on an adult for assistance. In the same way, students with disabilities that impact their independent functioning may need the support of another adult. When students that depend on accessible content move to remote environments where they have a different level of access to a teacher or a paraprofessional, it is critical to embed explicit instructions.

While we will be digging into the broader topic of explicit instruction in [Session 4](#), it is important to note here that in addition to student-directed instructions, teachers of young students or students with multiple needs should embed into their content explicit instructions to guide individuals who are supporting student learning (e.g., a sibling, parent or family member, tutor, etc.).

Your Turn!



Let's give it a go! After exploring more about web accessibility in a choice board, you will then implement the POUR model to increase the accessibility of a resource or content you use in your classroom.

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About Us

The TALE Academy

The TALE Academy is a series of virtual learning experiences available to all New York State educators and offers a rich array of resources on topics related to teaching across learning environments (TALE). The TALE Academy is built upon the work New York State educators carried out during emergency remote teaching (ERT) throughout the COVID-19 pandemic and extends it toward the future. TALE invites educators to think beyond online learning to consider a broader perspective on teaching and learning that encompasses teaching across multiple environments (in-person, remote, and hybrid).

The Teaching in Remote/Hybrid Learning Environments (TRLE) Project

The TALE Academy is part of a broader New York State Education Department (NYSED) initiative known as Teaching in Remote/Hybrid Learning Environments (TRLE). In July 2020, NYSED was awarded funding through the United States Department of Education's Education Stabilization Fund-Rethink K-12 Education Models Grant to implement TRLE – a three-year project to build the capacity of teachers and educational leaders to effectively implement remote/hybrid learning for all students. Launched in the depths of the pandemic, the first phase of the TRLE project focused on getting resources to the field through partnerships with Boards of Cooperative Educational Services (BOCES) and school districts across the state. The second phase, which began in February 2022, focused on aggregating lessons learned and emerging teaching and learning strategies to address a broader field of practice: teaching across learning environments.

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