

Access to Impact: Empowering k-12 Learners through Accessibility and Engagement

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Session Outcomes

- Identify barriers that impact equitable digital learning in k-12 classrooms.
- Explore how accessibility and Universal Design for Learning (UDL) reduce those barriers.
- Examine responsible uses of AI to personalize learning while maintaining rigor.
- Leave with practical strategies to design more inclusive, student-centered learning experiences.



Barriers Beyond the Screen

- Inaccessible digital materials
- One-size-fits-all instruction
- Restrictive technology policies
- Device or internet limitations
- Language barriers
- Disabilities requiring accommodations
- AI access differences between students
- Limited student voice and choice



Where Equity, Accessibility, and Design Intersect

Equity

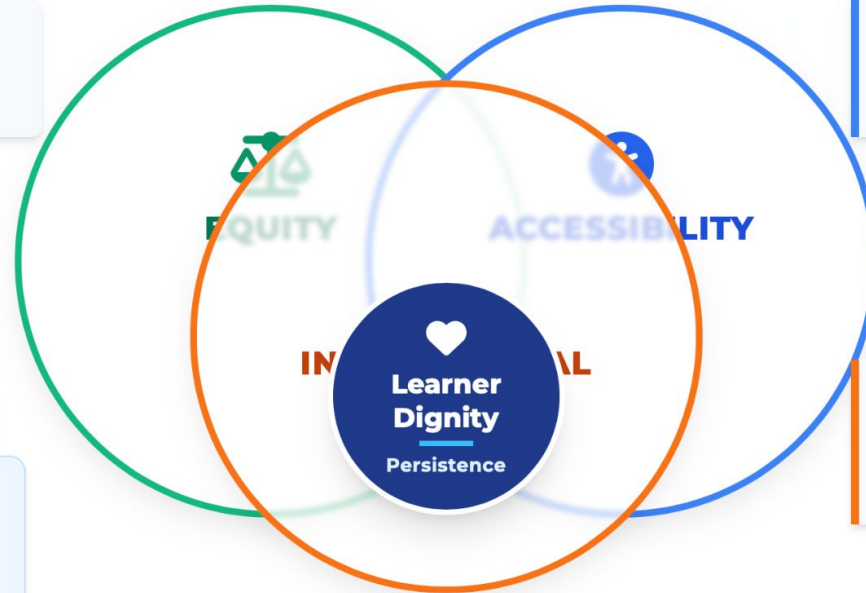
Removing systemic barriers to ensure fair opportunities for all learners.

Accessibility

Proactively designing content so it can be used by people with disabilities.

Instructional Design

Structuring learning experiences intentionally to maximize engagement and retention.



CORE PRINCIPLE



"Accessibility is proactive design, not a reactive checklist."



Universal Design for Learning (UDL)

Multiple Means of Engagement THE "WHY" OF LEARNING

Stimulating interest and
motivation for learning.

- Optimizing choice
- Fostering collaboration
- Minimizing threats

Multiple Means of Representation THE "WHAT" OF LEARNING

Presenting information and
content in different ways.

- Clarifying vocabulary
- Various media options
- Activating background
knowledge

Multiple Means of Action & Expression THE "HOW" OF LEARNING

Differentiating the ways
students can express what
they know.

- Varying methods for
response
- Using assistive tools
- Building fluency levels



Designing for Diverse Needs

Cognitive:

- **Chunk Instructions:** Break complex tasks into small, manageable steps.
- **Plain Language:** Use Clear, direct wording.
- **Visual Organizers:** Provide templates, graphic organizers, and maps.

Emotional/Trauma Related:

- **Predictable Structure:** Use consistent routines and navigation layouts.
- **Clear Expectations:** Provide rubrics and examples of success upfront.
- **Choice & Autonomy:** Allow learners control over pacing and topic selection when possible.

Sensory:

- **Captions and Transcripts:** Ensure all audio/video has text alternatives.
- **High Contrast:** Maintain consistent contrast ratios for text readability.
- **Screen-Reader Friendly:** Use proper heading structures and alt text for images.

Physical:

- **Keyboard Navigation:** Ensure all interactive elements work without a mouse.
- **Flexible Timing:** Remove or extend time limits on assessments.
- **Target Size:** Make buttons and links large enough to click easily.



Scenario #1: Maya

Maya is a fourth-grade student with dyslexia who understands science concepts but struggles with reading-heavy research tasks and lengthy written responses. There is a major test coming up. What are some ways to help them prepare?

Table Discussion:

- What barriers exist?
- Which UDL principles apply?
- Which accessibility tools would help?
- Could AI support brainstorming or organization responsibly?



Technology Policies & Classroom Reality

Balancing security protocols with educational access requires creative solutions:

Whitelisted platforms and educational sites

Offline tools (local apps, PDFs, etc.)

Hybrid print/digital workflows

Preloaded materials on secure devices.

LMS hosted within the security firewall.



Scenario #2: Research Paper

A 7th-grade ELA teacher assigns a research paper on environmental issues. Students are expected to:

- Find credible online sources
- Write a 4-5 paragraph essay with citations
- Submit the final draft through the LMS.

Barriers:

- The school's internet filter blocks many common research websites.
- Students only have access to a limited list of "approved" websites that are often too complex or outdated.
- Some students need text-to-speech or translation tools, but they aren't consistently available or are restricted on student devices.



Scenario #2 cont...Table discussion

- What are the actual barriers in this assignment, not student limitations?
- How are accessibility tools (or lack of access to them) impacting student success?
- How can the teacher maintain rigor, ensure academic integrity, and follow district policy, while making sure EVERY student can successfully complete the assignment?



Designing Future-Ready Classrooms

Accessibility Benefits Every Learner:

- When we design for the margins, we create a better, clearer, and more intuitive experience for every learner, regardless of ability.

Constraints Require Creativity:

- Limited tech or security barriers are not dead ends. They are design challenges that push us to find low-tech, high-impact solutions.

Flexibility Increases Persistence

- Giving learners choices in how they engage and express knowledge reduces anxiety and builds the agency needed for lifelong learning.

Inclusive Design is Good Teaching

- This isn't just about compliance or checklists. It's about respecting the dignity and potential of every learner.



Closing Reflection

If you could remove one barrier for your students for next school year, what would it be, and what is one action you can take to make that happen?





**THANKS FOR COMING TO
MY TED TALK**