



The Practical Guide to WCAG compliance

How to Test Tools Like an Engineering
Accessibility Lead



Alice Smith

Engineering Accessibility Lead

Agenda

- ▶ **My Story and Team Ace Introduction**
 - ▶ How Do People Actually Learn?
 - ▶ How We Build: Accessibility as a Culture
 - ▶ Tips for Testing Tools Like an Accessibility Lead
 - ▶ The Reverse Accessibility Lab Activity
- 

My Story:

The Student Experience

- **Dyslexia and dyspraxia** -
A levels (end of high school)
- Given **Audio Notetaker**
through DSA (DSS)
- Learning finally felt
manageable



My Story:

The Teacher

- Head of Business and Law
- Overhauled the department with **evidence-based pedagogy**
- A level Law: **8 students** achieved A* (4.0 GPA)



My Story:

The Engineer

- **Retrained** into engineering during Covid
- **Joined Genio** - Building the direct successor to the tool that helped me
- Student → Educator → **Engineer**





Alice



Mala



Steve



Rach



Kelly

Let me introduce you to the rest of **Team ACE!**

*"You have all made my job so much easier. Because, you know, we were all held to the fire. 'What software do you use? We need their VPAT and are they compliant?' and **I knew I was not going to have to do that extra work with Genio. I knew that it was already done for me.** I was able to sleep at night when a lot of people were not."*

**Marye Minor, Coordinator of Accessible Technology,
Volunteer State Community College**

Agenda

▶ My Story and Team Ace Introduction

▶ **How Do People Actually Learn?**

▶ How We Build: Accessibility as a Culture

▶ Tips for Testing Tools Like an Accessibility Lead

▶ The Reverse Accessibility Lab Activity



Activity Time

Pull up your notes app



00:30

So... How do people actually learn?

- Avoiding the **Highlighter trap**
- **Retrieval Practice**
- **Cognitive load theory**



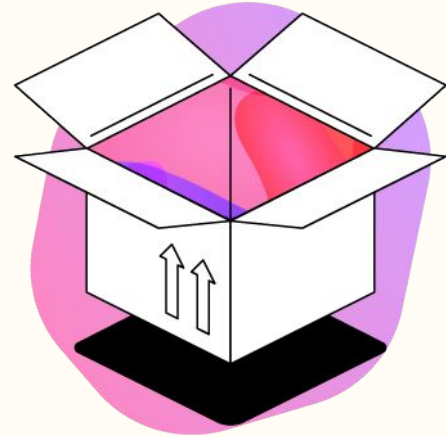
The **highlighter** trap

- Recognition $\neq$ recall
- Comfort **isn't** consolidation, it's the illusion of familiarity
- The struggle is the mechanism for learning, **not the failure**



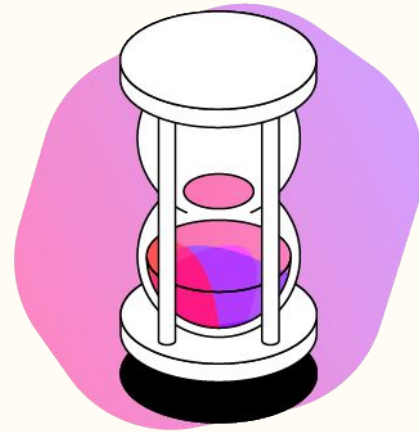
Retrieval Practice

- **Getting it out** is what builds the memory - not putting it in
- Every retrieval makes the memory **more durable**
- **Spaced recall** across 12 weeks - not just last week's content



Cognitive Load Theory

- **Working memory has limits** - we can only hold so much at once
- Good design **reduces friction** so capacity goes toward actual learning
- Inaccessible tools steal that capacity **before learning even starts**



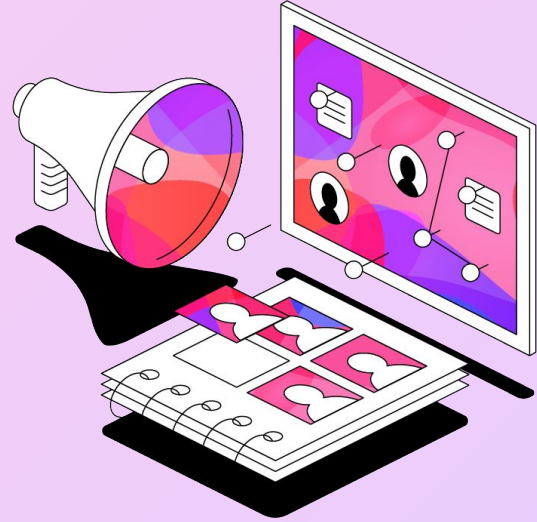
Activity

Have a think about **have you or your students ever fallen into these learning traps?**

Have you used any of the learning techniques described? **How did they help you?**

The three topics:

- **The Highlighter Trap**
- **Retrieval Practice**
- **Cognitive Overload**



Guess the Learning Science in Practice – **Audio Recording with Time Stamped Notes**

Slide 1 - Study Effectively Raise Grades Boost Confidence

There is more to studying than rereading and highlighting text - this isn't as useful as methods used throughout the lecture

00:27 ◀ ▶ ⏸ ⏹

! Topics covered in this module:

1. Effective notes
2. Process for note taking
3. Active studying
4. New strategies

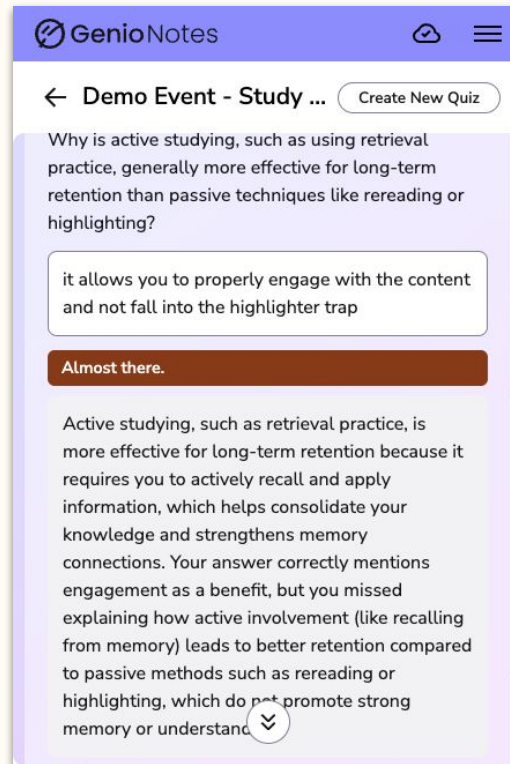
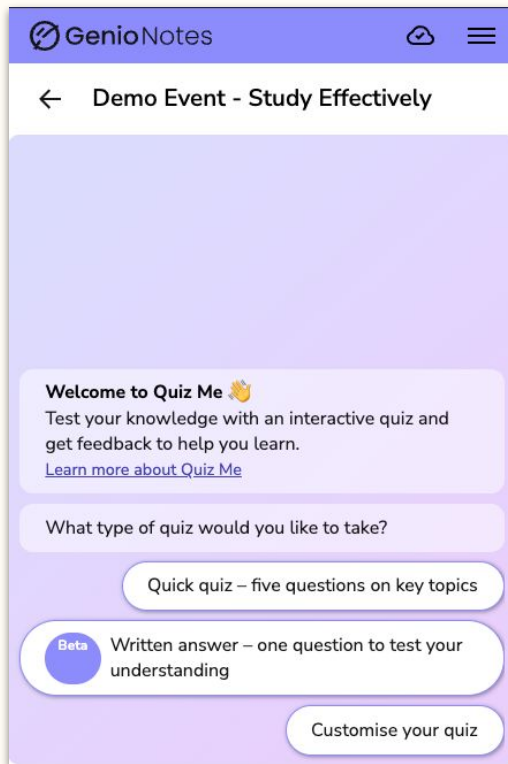
Slide 2 - Ebbinghaus Forgetting Curve

The interface shows a presentation with two slides. Slide 1, titled 'Study Effectively Raise Grades Boost Confidence', contains a text block stating that rereading and highlighting are less useful than methods used in the lecture. Below this is a video player showing a timestamp of 00:27 and playback controls. A sidebar on the right lists topics covered in the module: Effective notes, Process for note taking, Active studying, and New strategies. Slide 2, titled 'Ebbinghaus Forgetting Curve', features a diagram of the forgetting curve, which shows a steep initial drop in retention followed by a more gradual decline. The diagram includes a red bar representing the curve and a red exclamation mark icon.

- Can't listen deeply **and** write verbatim simultaneously
- Timestamps let students **focus on understanding**, fill in detail later

Quiz me

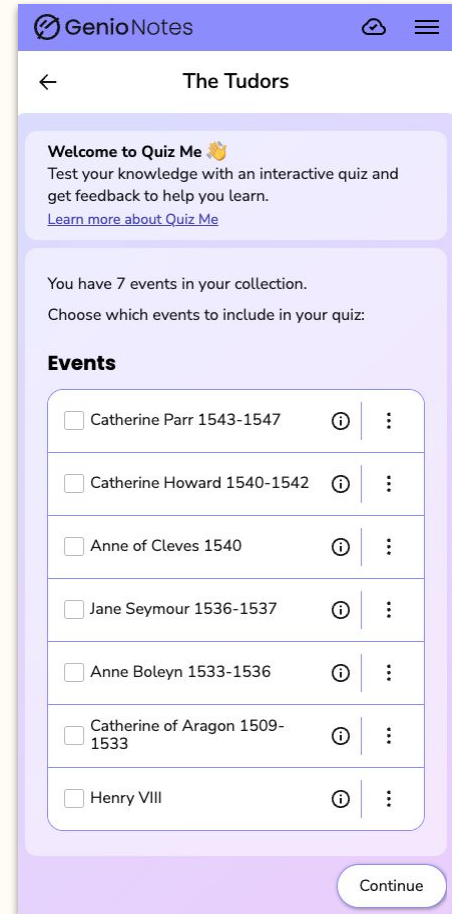
- Faye built this from **her own teaching practice**
- Wrong answer → direct link back to source **in one click**
- **Enhanced feedback: misconception addressed** before correct answer



Learning Science in Practice

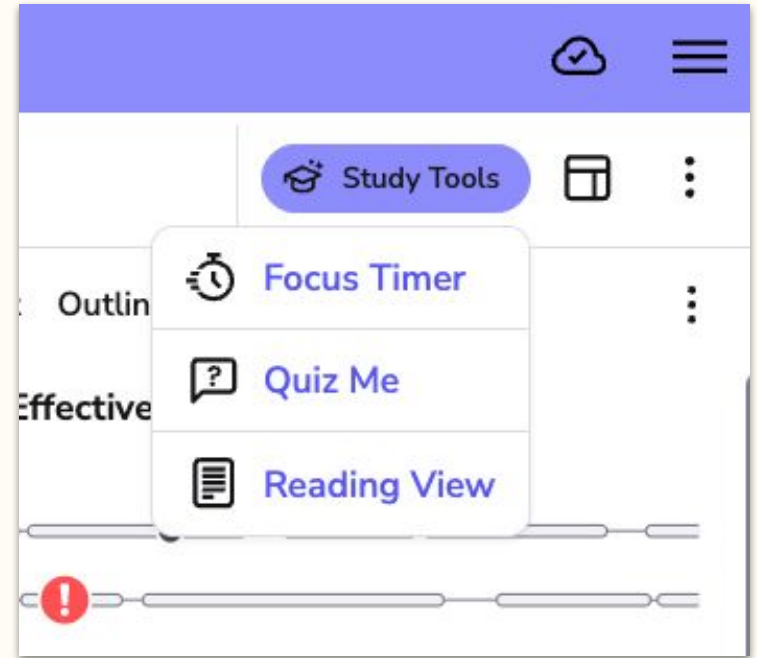
Collections Quiz Me

- Quiz across a **whole module**, not just one lecture
- 12-week **spaced recall window** - every retrieval strengthens the neural connection
- Single-lecture quiz = checkpoint.
Collections = **long-term consolidation**



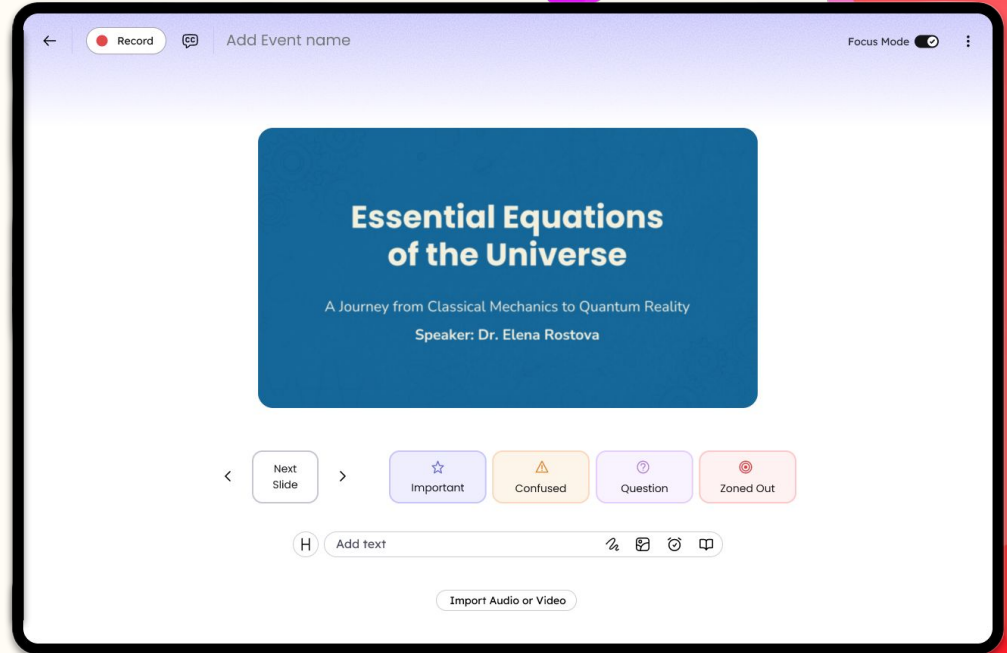
Learning Science **in Practice**

- Recording is the start, **not the end**
- Decision friction peaks **right after a lecture ends**
- Removes the cognitive overhead of **'what do I do next?'**



Focus Mode

- WCAG tells you if a tool is operable - not if it's **calm**
- Visual clutter competes for the **same resources** as learning
- Will this help students **thrive**?



Agenda

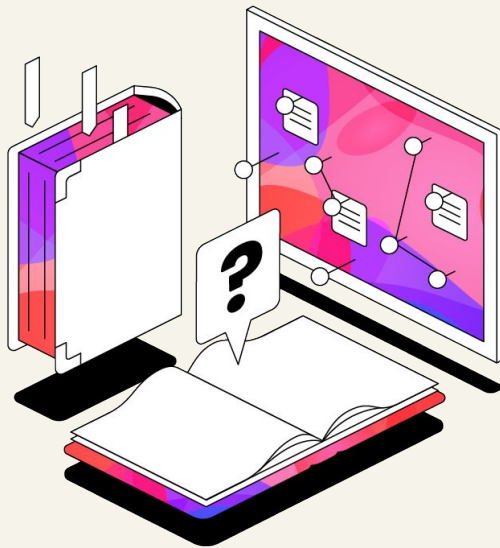
- ▶ My Story and Team Ace Introduction
- ▶ How Do People Actually Learn?
- ▶ **How We Build: Accessibility as a Culture**
- ▶ Tips for Testing Tools Like an Accessibility Lead
- ▶ The Reverse Accessibility Lab Activity



“Do you have a VPAT?”

may not tell you everything

- It is very important to check that tools used in your departments have a **full VPAT**
- A conformance statement is **only a snapshot in time**
- **Ask instead:** how do you ensure you still deserve it in six months?



How we build – **Accessibility as a development standard**

- In the definition of **done**
- **Automated checks** in our CI pipeline
- Assistive technology testing **as standard**
- **Accessibility Guild**
- **Genio Champion Council**



Over to you – 90 seconds

*"Think about a tool your institution uses or has recently evaluated (can be hypothetical). **What would you ask now that you haven't been asking?**"*



1:30

Agenda

- ▶ My Story and Team Ace Introduction

- ▶ How Do People Actually Learn?

- ▶ How We Build: Accessibility as a Culture

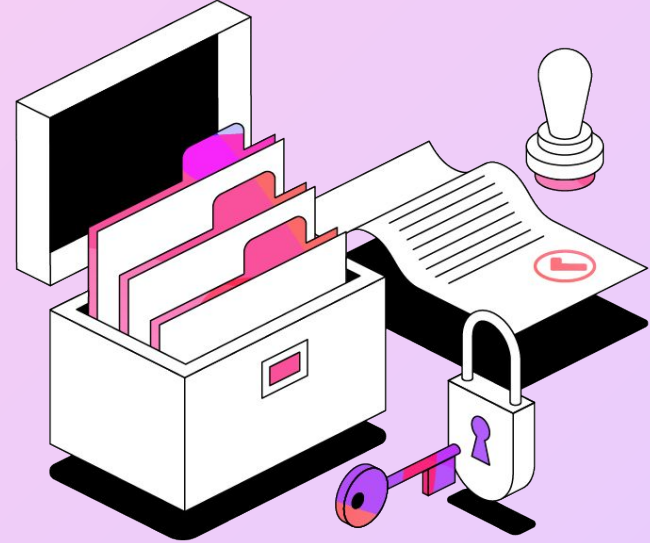
- ▶ **Tips for Testing Tools Like an Accessibility Lead**

- ▶ The Reverse Accessibility Lab Activity

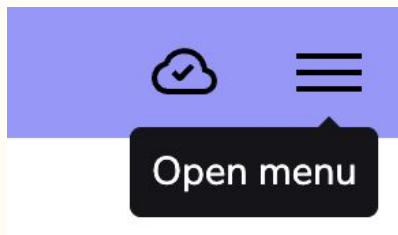


How we test

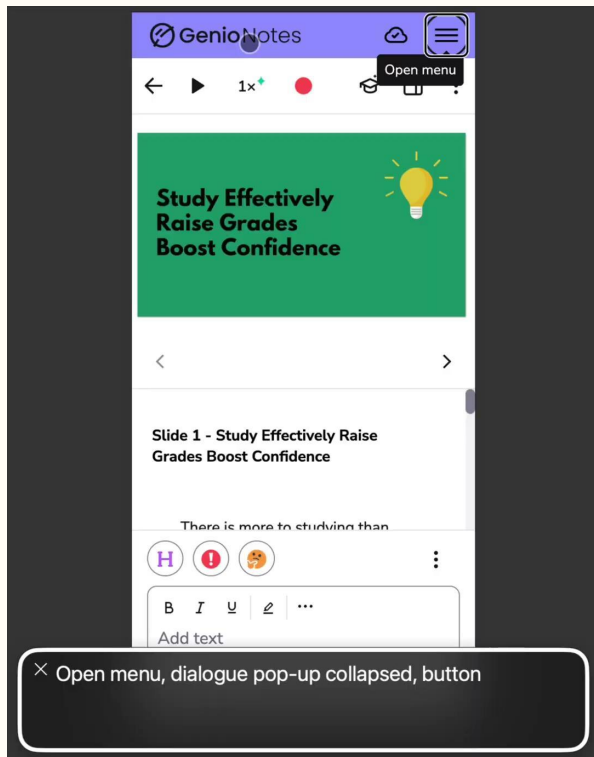
- In-house on every change:
 - **screen readers**
 - **keyboard navigation**
 - **Axe-core automated checks**
 - **focus order**
 - **contrast**
- Large product surface - verified separately
- Third party audits: external eyes, but we challenge findings we disagree with



Spot the ally issue – **screen reader**

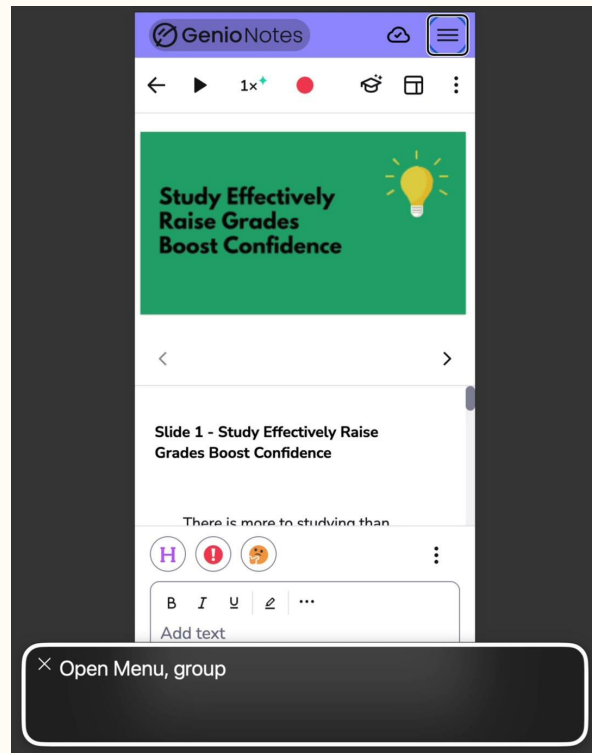


- A div has no semantic meaning - VoiceOver just says "group"
- A button tells the user what it is / does, and its current state
- Invisible barrier with a screen reader



× Open menu, dialogue pop-up collapsed, button

Open menu, dialogue
pop-up collapsed, button

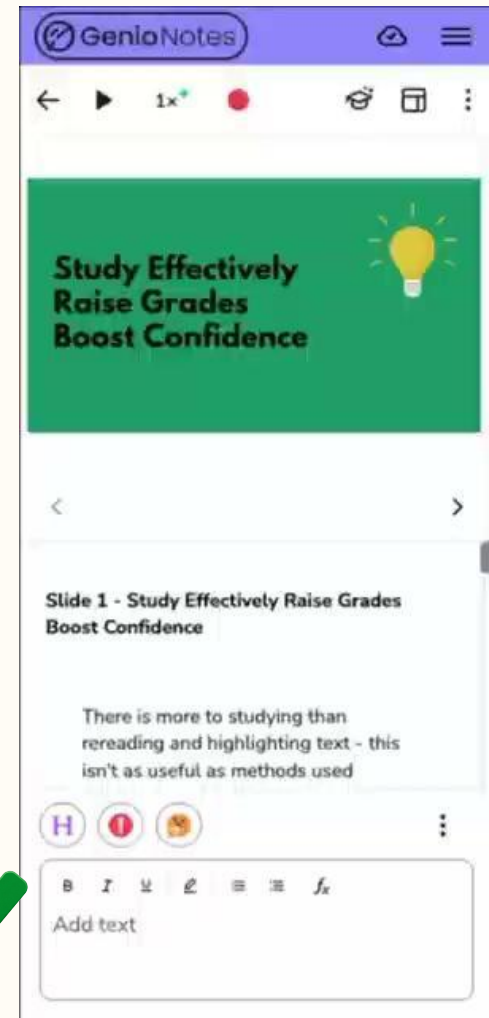
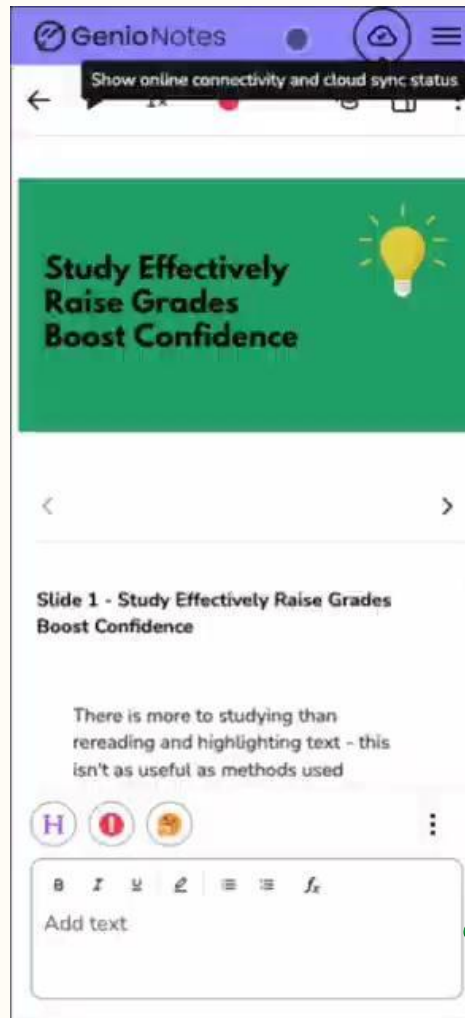


× Open Menu, group

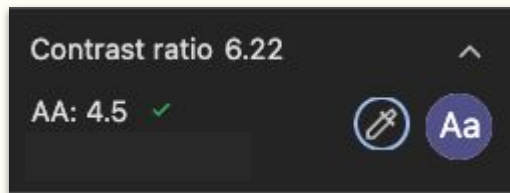
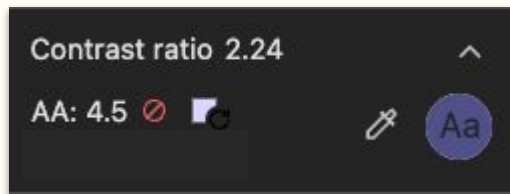
Open menu, group

Spot the ally issue – **focus**

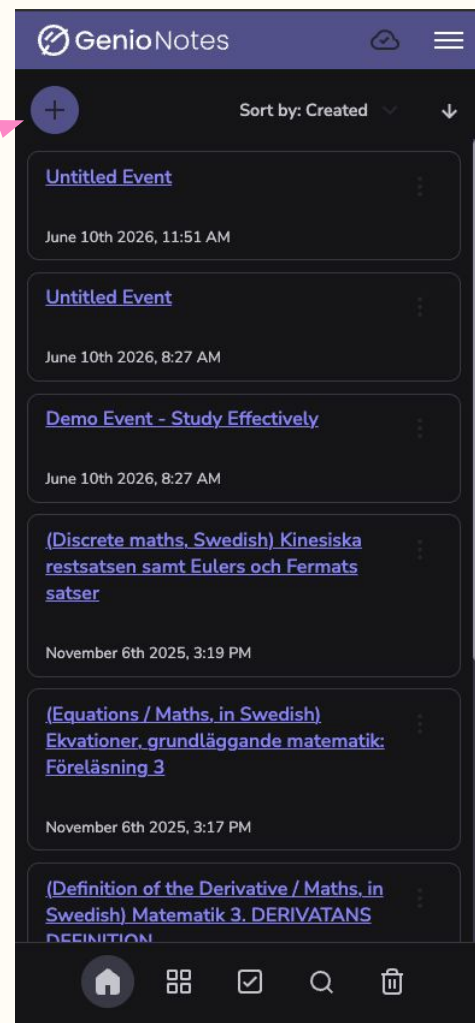
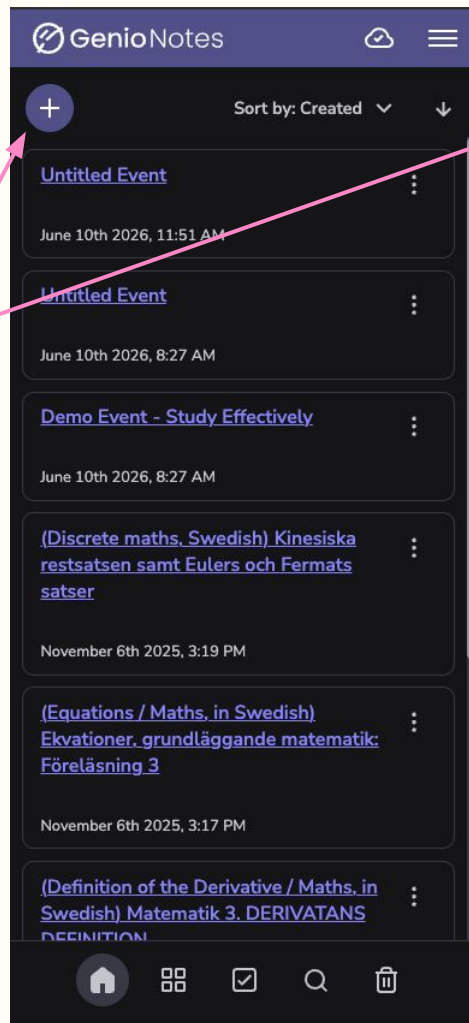
- Some controls skipped entirely - unreachable by keyboard
- No visible focus indicator means navigating blind
- Jumbled order, focus traps, also common issues



Spot the ally issue – **contrast**

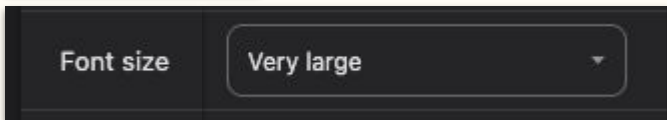


- Looks fine to many people, invisible barrier to others
- Low vision, bright light, fatigue contrast failures affect more users than you'd expect

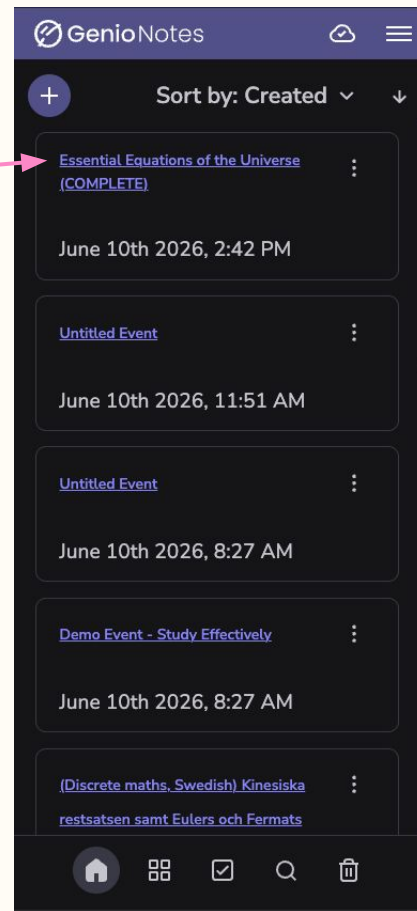
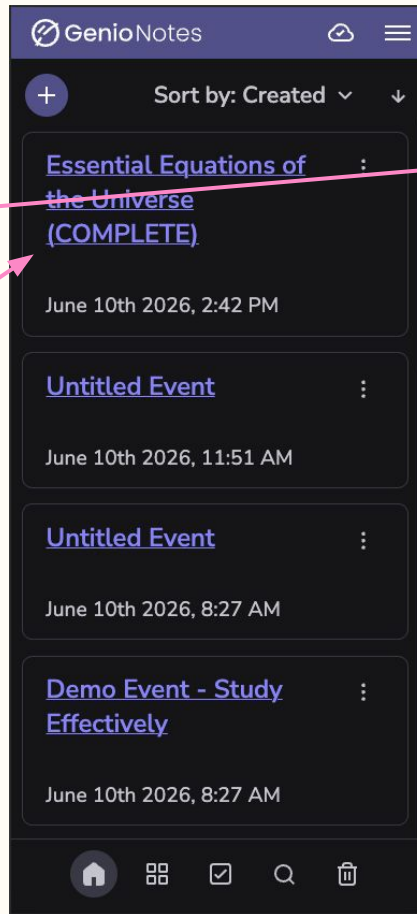


Spot the ally issue - scaling

```
element.style {  
  font-size: 14px;  
}
```



- px is absolute, it ignores the user's system font size preferences entirely
- rem scales with whatever the user has set, their preferences are respected
- Significant barrier for low vision users



Four Tests Anyone Can Run – No Tools Needed

1. The Keyboard Test

Tab through the product without touching the mouse. **Can you reach every control? Does focus always have a visible indicator?**

What to look for: logical tab order, no keyboard traps, all interactive elements reachable



2. VoiceOver / Screen Reader

Turn on your system screen reader (VoiceOver: Cmd + F5 on Mac) and navigate for 5 minutes - **does it make sense?**

What to listen for: meaningful labels on buttons and inputs, not 'button' or 'click here'



3. The 200% Zoom Test

Zoom your browser to 200% - **does the content reflow cleanly or break and overlap?**

What to look for: no content disappearing, no horizontal scrolling required, text remaining readable



4. The Colour Contrast Check

Install a free contrast checker extension on your browser and run it on the homepage - **how many issues come back?**

What to look for: contrast ratio failures on body text (must be 4.5:1 min), UI components (3:1 minimum)

Agenda

- ▶ My Story and Team Ace Introduction
- ▶ How Do People Actually Learn?
- ▶ How We Build: Accessibility as a Culture
- ▶ Tips for Testing Tools Like an Accessibility Lead
- ▶ **The Reverse Accessibility Lab Activity**



Reverse Accessibility Lab Activity

- <https://bit.ly/4yaj5Uj>
- Everything you've learned today - put into practice
- Each room is broken for mainstream use, feel the friction first, then find the other way in
- Groups of 3-5, pick see how many rooms you can get through, find the hidden clue

HOW IT WORKS

1

Enter each challenge room

There are 5 rooms, each focused on a different way of interacting with a page.

2

Find the hidden clue

Each room hides a one-word clue. The mainstream path won't reveal it — you'll need to interact differently.

3

Collect all five clues

Jot them down. They'll make sense when you reach the final quiz.

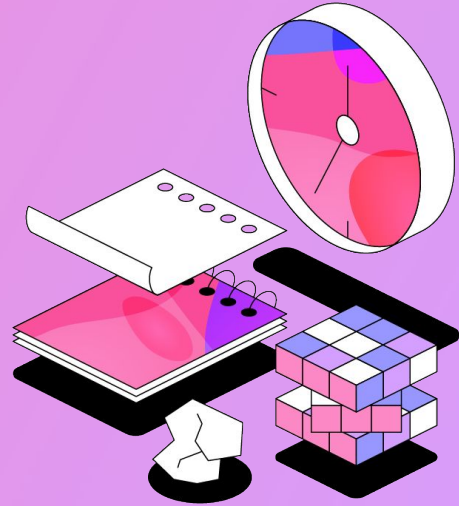
4

Answer the final quiz

Combine your clues to unlock the answer and finish the challenge.

Lab **Debrief and Reflections**

- Which room did you try?
- What friction did you hit first?
- What does that mean for a student who lives with that barrier every day?



Naming the Learning Science

- You didn't read about it, **you felt it**
- **Discomfort then discovery:** that's the learning moment
- Every time you pull it out, **it gets stronger**
- **This was deliberate,** it's how we think about Genio Notes too



Accessibility

To meet the ADA Title II deadline of April 24, 2026, don't just ask vendors if they're compliant. Here's how to get the details you need:

Key questions to ask

- ☐ How does the vendor maintain WCAG compliance and what testing is in place for new features?
- ☐ How does the vendor deal with accessibility bugs in product development?
- ☐ Does the vendor provide appropriate ACR* (VPAT) documentation?
- ☐ Is accessibility testing performed manually, or using automation? Is a third party used for objective testing?
- ☐ Does the vendor's software rely on an accessibility overlay/widget?

*Accessibility Conformance Report

Compliance and Testing

- ✓ Has **WCAG compliant features** and a clear remediation plan to fix any known issues.
- ✓ **Manual testing** takes place before new feature releases to remove accessibility bugs where possible.
- ✓ This topic is approached with **transparency** and honesty.
- ✗ Relies solely on automated testing, which can miss up to 70% of accessibility issues (Accessibility Works, 2025). Be wary if they claim 100% WCAG compliance without manual/human testing.
- ✗ Does not address how they test new features during product development to look for accessibility bugs.

ACR (VPAT) Documentation

- ✓ Documentation is **readily available**.
- ✓ Evaluation should include **manual testing**, as automation misses up to 70% of issues.
- ✓ Evaluation & documentation completed by a trusted **third-party** for credible results.
- ✗ ACR (VPAT) is not provided or difficult to access.
- ✗ Evaluation only uses automated testing, which is not thorough.
- ✗ Evaluation & documentation is not performed by a third-party digital accessibility expert.

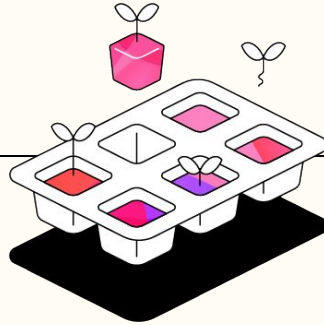
Accessibility Overlays/Widgets

- ✓ Software **does not use an accessibility overlay** or widget, and focuses on creating an accessible codebase to remove foundational issues.
- ✗ Utilizes an accessibility overlay to mask inaccessible code. Overlays use automation which may miss accessibility concerns, and can introduce new accessibility barriers.

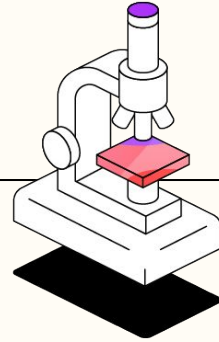
To **Summarise** our session today



Compliance is
where you start



Culture is what
keeps you there



Learning science
is what makes the
tool work for the
student



Thank you so much!

- One thing you will do differently in your role over the next semester as a result of this session
- One thing you feel more confident about after this session

Final Sticky Note

- One thing you will do differently in your role over the next semester as a result of this session
- One thing you feel more confident about after this session
- Please share with your table

