

Accessibility of Tuva Data Tools

March 2026

Our Commitment

At Tuva, we are committed to making our data tools accessible and usable for all learners, including those with cognitive, visual, auditory, or physical disabilities. We continuously invest in accessibility features aligned with **WCAG 2.1 Level AA** standards — the same standard referenced in the 2024 DOJ regulations requiring digital accessibility in public schools and universities.

What's Available Today

Visual Accessibility

Font Size & Case Size Control Learners can increase the font size of text and the size of data points (cases) in the plotting area, ensuring students with low visual acuity can perceive all graphical information.

Color Contrast Options Two contrast modes are available: Default (black on white) and Reverse Contrast (white on black). Our standard text contrast exceeds WCAG requirements at over 19:1 ratio (the minimum required is 4.5:1). The tool also respects operating system high-contrast preferences automatically.

Colorblind-Safe Data Colors Three data color schemes are available: Standard, Colorblind Safe, and Grayscale. These ensure that data visualizations remain distinguishable for students with any form of color vision deficiency.

Auditory & Speech Accessibility

Text-to-Speech The Tuva Tools include descriptive labels across all interactive areas — cards, toolbar menus, and the plotting area — enabling screen readers and assistive technology to convey the full data analysis experience to students with low vision or blindness.

Sonification (Beta) Our sonification feature creates an auditory representation of visual data shown in the plotting area. Students can hear patterns in data, providing an alternative pathway to data analysis. This feature is in active development based on educator and researcher feedback.

Motor & Physical Accessibility

Full Keyboard Navigation Every feature in the Tuva Tools can be operated without a mouse. Students can navigate using Tab, activate controls with Enter or Spacebar, close menus with Escape, and adjust sliders with arrow keys. A keyboard shortcuts reference is available via the help menu.

Attribute Keyboard Support Students can add and remove data attributes to the x-axis, y-axis, and legend entirely through keyboard interaction, enabling complete data exploration without a mouse.

Animation Control Graph animations can be toggled off in the Accessibility Card for students who are sensitive to motion or who use screen readers.

Language Support

Multilingual Interface The Tuva Tools are available in over 10 languages, ensuring accessibility for English Language Learners and multilingual classrooms.

Documentation & Guidance

Accessibility Resource Page We maintain a dedicated accessibility page at tuvalabs.com/accessibility with feature guides, screenshots, and video walkthroughs to help educators understand and leverage these tools for their students.

How We Measure Up: WCAG 2.1 Level AA

Area	What This Means	Our Status
Text & Visual Content	Content is readable, resizable, and distinguishable	Strong — contrast themes, font controls, colorblind support
Keyboard & Navigation	All features operable without a mouse	Strong — full keyboard navigation with documented shortcuts
Screen Reader Compatibility	Assistive technology can interpret all content	Good — ARIA labels across interactive elements, live announcements
Understandable	Interface is predictable, content is readable	Strong — consistent UI, multilingual support
Alternative Formats	Multiple ways to access information	Good — text-to-speech, sonification (beta), visual customization

What's Next

We are actively working on enhancements to further strengthen accessibility:

- **Expanded screen reader support** — Continuing to refine announcements for dynamic content changes in data visualizations
- **Enhanced motion controls** — Automatic respect for operating system "Reduce Motion" preferences
- **Sonification improvements** — Evolving from beta based on educator and accessibility researcher feedback
- **Automated accessibility testing** — Integrating accessibility checks into our development process to prevent regressions
- **Additional contrast themes** — More foreground and background color combinations

Our Approach

Accessibility is not a one-time checklist — it's an ongoing practice embedded in how we build. We combine:

- **Built-in features** that students and teachers can control directly (themes, font size, TTS, keyboard navigation)
- **Technical standards** alignment with WCAG 2.1 Level AA success criteria

- **Continuous improvement** informed by educator feedback, user research, and evolving best practices

We welcome feedback from educators, students, and accessibility specialists. If you encounter any barriers using Tuva Tools, please reach out to us at support@tuvalabs.com.

Tuva is committed to ensuring all students can explore, analyze, and understand data — regardless of ability.