

# Open Adaptive Tutor Accessibility Conformance Report

## Revised Section 508 Edition

(Based on VPAT® Version 2.4)

**Name of Product/Version:** Open Adaptive Tutor / Version 1.3.0

**Report Date:** January 17, 2022

**Product Description:** Open Adaptive Tutor is an open source Intelligent Tutoring System using Bayesian Knowledge Tracing implemented in ReactJS and Firebase for data analysis & logging purposes.

**Contact Information:** Zachary Pardos (pardos@berkeley.edu)

**Notes:** This is the initial conformance report, subsequent revisions to this document will be noted in this Notes section.

**Evaluation Methods Used:** A random set of lesson and problem pages were identified to represent the platform in its entirety. An audit was subsequently performed on these pages in addition to the home page and help page. The pages were automatically tested with the TPGARC Engine and the Compliance Sheriff® Cynthia Says™ tool. Next, a manual review was conducted using NVDA.

# Applicable Standards/Guidelines

This report covers the degree of conformance for the following accessibility standard/guidelines:

Standard/Guideline	Included In Report
<a href="#">Web Content Accessibility Guidelines 2.0</a>	Level A (Yes) Level AA (Yes) Level AAA (No)
<a href="#">Revised Section 508 standards published January 18, 2017 and corrected January 22, 2018</a>	(Yes)

## Terms

The terms used in the Conformance Level information are defined as follows:

- **Supports:** The functionality of the product has at least one method that meets the criterion without known defects or meets with equivalent facilitation.
- **Partially Supports:** Some functionality of the product does not meet the criterion.
- **Does Not Support:** The majority of product functionality does not meet the criterion.
- **Not Applicable (N/A):** The criterion is not relevant to the product.
- **Not Evaluated:** The product has not been evaluated against the criterion. This can be used only in WCAG 2.0 Level AAA.

## WCAG 2.0 Report

Tables 1 and 2 also document conformance with Revised Section 508:

- Chapter 5 – 501.1 Scope, 504.2 Content Creation or Editing
- Chapter 6 – 602.3 Electronic Support Documentation

Note: When reporting on conformance with the WCAG 2.0 Success Criteria, they are scoped for full pages, complete processes, and accessibility-supported ways of using technology as documented in the [WCAG 2.0 Conformance Requirements](#).

## Table 1: Success Criteria, Level A

Notes: Software and Authoring Tool conformance levels are all Not Applicable as Open Adaptive Tutor is not a software product and does not allow users to author content through the platform. All Supporting Electronic Docs are hosted through Google Docs and thus follows their accessibility conformance criteria. This table will therefore only include the conformance levels for the Open Adaptive Tutor website.

Criteria	Conformance Level	Remarks and Explanations
<b><u>1.1.1 Non-text Content</u></b> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Supports	Open Adaptive Tutor provides text alternatives to non-text content by default. Open Adaptive Tutor supports the ability to attach text content to instructor-uploaded non-text content.
<b><u>1.2.1 Audio-only and Video-only (Prerecorded)</u></b> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Not Applicable	Open Adaptive Tutor does not include audio-only or video-only content by default. Open Adaptive Tutor does not support the ability for instructors to upload audio or video content.
<b><u>1.2.2 Captions (Prerecorded)</u></b> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Not Applicable	Open Adaptive Tutor does not include audio content by default. Open Adaptive Tutor does not support the ability for instructors to upload audio content.
<b><u>1.2.3 Audio Description or Media Alternative (Prerecorded)</u></b> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Not Applicable	Open Adaptive Tutor does not include audio-only or video-only content by default. Open Adaptive Tutor does not support the ability for instructors to upload audio or video content.
<b><u>1.3.1 Info and Relationships</u></b> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> </ul>	Partially Supports	In complex arithmetic input fields, no labeling is present. Labeling and indication of current values is present in all other types of user inputs.

Criteria	Conformance Level	Remarks and Explanations
<ul style="list-style-type: none"> <li>602.3 (Support Docs)</li> </ul>		
<b><u>1.3.2 Meaningful Sequence</u></b> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Supports	
<b><u>1.3.3 Sensory Characteristics</u></b> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Supports	Open Adaptive Tutor does not rely on sensory characteristics by default. Instructor-uploaded content may quiz students on sensory characteristics of an image—Open Adaptive Tutor supports text annotation of such images.
<b><u>1.4.1 Use of Color</u></b> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Supports	Open Adaptive Tutor does not rely on color information to indicate correctness of a student response, a text indication will always appear following a submission action.
<b><u>1.4.2 Audio Control</u></b> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Supports	Open Adaptive Tutor does not support pre-recorded or live audio.
<b><u>2.1.1 Keyboard</u></b> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Supports	
<b><u>2.1.2 No Keyboard Trap</u></b> (Level A) Also applies to: Revised Section 508	Supports	

Criteria	Conformance Level	Remarks and Explanations
<ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>		
<b>2.2.1 Timing Adjustable</b> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Supports	Open Adaptive Tutor does not include any functionalities with a time limit.
<b>2.2.2 Pause, Stop, Hide</b> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Supports	When notification toasts appear on the top right corner, it is possible to pause, stop, and hide the notification toast.
<b>2.3.1 Three Flashes or Below Threshold</b> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Supports	Open Adaptive Tutor does not include video content or animated content by default. Instructors are unable to upload video or animated content.
<b>2.4.1 Bypass Blocks</b> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software) – Does not apply to non-web software</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs) – Does not apply to non-web docs</li> </ul>	Supports	Open Adaptive Tutor uses standard content landmark tags.
<b>2.4.2 Page Titled</b> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Supports	Open Adaptive Tutor is a single page app; thus all pages will have the same title tag.
<b>2.4.3 Focus Order</b> (Level A)	Partially Supports	Open Adaptive Tutor supports traditional keyboard and

Criteria	Conformance Level	Remarks and Explanations
<p>Also applies to:</p> <p>Revised Section 508</p> <ul style="list-style-type: none"> <li>• 501 (Web)(Software)</li> <li>• 504.2 (Authoring Tool)</li> <li>• 602.3 (Support Docs)</li> </ul>		screen reader navigation, resulting in consistent and logical sequencing. When used with languages with right-to-left writing, the navigation sequence is not mirrored.
<p><b>2.4.4 Link Purpose (In Context)</b> (Level A)</p> <p>Also applies to:</p> <p>Revised Section 508</p> <ul style="list-style-type: none"> <li>• 501 (Web)(Software)</li> <li>• 504.2 (Authoring Tool)</li> <li>• 602.3 (Support Docs)</li> </ul>	Supports	
<p><b>3.1.1 Language of Page</b> (Level A)</p> <p>Also applies to:</p> <p>Revised Section 508</p> <ul style="list-style-type: none"> <li>• 501 (Web)(Software)</li> <li>• 504.2 (Authoring Tool)</li> <li>• 602.3 (Support Docs)</li> </ul>	Supports	All pages contain a defined language value in the html tag.
<p><b>3.2.1 On Focus</b> (Level A)</p> <p>Also applies to:</p> <p>Revised Section 508</p> <ul style="list-style-type: none"> <li>• 501 (Web)(Software)</li> <li>• 504.2 (Authoring Tool)</li> <li>• 602.3 (Support Docs)</li> </ul>	Supports	Some animations may play on focus, but no context changes will occur.
<p><b>3.2.2 On Input</b> (Level A)</p> <p>Also applies to:</p> <p>Revised Section 508</p> <ul style="list-style-type: none"> <li>• 501 (Web)(Software)</li> <li>• 504.2 (Authoring Tool)</li> <li>• 602.3 (Support Docs)</li> </ul>	Supports	
<p><b>3.3.1 Error Identification</b> (Level A)</p> <p>Also applies to:</p> <p>Revised Section 508</p> <ul style="list-style-type: none"> <li>• 501 (Web)(Software)</li> <li>• 504.2 (Authoring Tool)</li> </ul>	Supports	Errors will be displayed in a timely manner through a notification toast.

Criteria	Conformance Level	Remarks and Explanations
<ul style="list-style-type: none"> <li>602.3 (Support Docs)</li> </ul>		
<b>3.3.2 Labels or Instructions</b> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Supports	
<b>4.1.1 Parsing</b> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Supports	Open Adaptive Tutor conforms to the HTML 5 standards. Instructor-uploaded contents are automatically transformed into valid HTML 5 content.
<b>4.1.2 Name, Role, Value</b> (Level A) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Supports	Open Adaptive Tutor automatically populates value properties.

## Table 2: Success Criteria, Level AA

Notes: Software and Authoring Tool conformance levels are all Not Applicable as Open Adaptive Tutor is not a software product and does not allow users to author content through the platform. All Supporting Electronic Docs are hosted through Google Docs and thus follows their accessibility conformance criteria. This table will therefore only include the conformance levels for the Open Adaptive Tutor website.

Criteria	Conformance Level	Remarks and Explanations
<b><a href="#">1.2.4 Captions (Live)</a></b> (Level AA) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Not Applicable	Open Adaptive Tutor does not include any live audio functionalities.
<b><a href="#">1.2.5 Audio Description (Prerecorded)</a></b> (Level AA) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Not Applicable	Open Adaptive Tutor does not include audio or video content by default. Open Adaptive Tutor does not support the ability for instructors to upload audio or video content.
<b><a href="#">1.4.3 Contrast (Minimum)</a></b> (Level AA) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Supports	All texts have at least a contrast ratio of 6.87:1.
<b><a href="#">1.4.4 Resize text</a></b> (Level AA) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Supports	
<b><a href="#">1.4.5 Images of Text</a></b> (Level AA) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> </ul>	Supports	Open Adaptive Tutor does not include images of text by default. Instructor-uploaded content may include images of text—Open Adaptive Tutor supports text annotation of such images.



Criteria	Conformance Level	Remarks and Explanations
<ul style="list-style-type: none"> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>		
<b>2.4.5 Multiple Ways</b> (Level AA) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software) – Does not apply to non-web software</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs) – Does not apply to non-web docs</li> </ul>	Supports	Course and Lesson pages may be navigated in multiple ways. Problem pages are considered a step in the process and can, thus, only be navigated to via a click on the lesson.
<b>2.4.6 Headings and Labels</b> (Level AA) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Partially Supports	Some labeling in matrix input fields have duplicate descriptions.
<b>2.4.7 Focus Visible</b> (Level AA) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Supports	
<b>3.1.2 Language of Parts</b> (Level AA) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Supports	Instructor-uploaded content may contain text that is not English.
<b>3.2.3 Consistent Navigation</b> (Level AA) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software) – Does not apply to non-web software</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs) – Does not apply to non-web docs</li> </ul>	Supports	Open Adaptive Tutor intentionally re-orders questions based on student mastery on subjects; however, all other pages will always have consistent navigation and relevant navigation links are in consistent locations.
<b>3.2.4 Consistent Identification</b> (Level AA) Also applies to:	Supports	

Criteria	Conformance Level	Remarks and Explanations
Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software) – Does not apply to non-web software</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs) – Does not apply to non-web docs</li> </ul>		
<a href="#">3.3.3 Error Suggestion</a> (Level AA) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Partially Supports	Error messages sometime do not include a further action for the end user.
<a href="#">3.3.4 Error Prevention (Legal, Financial, Data)</a> (Level AA) Also applies to: Revised Section 508 <ul style="list-style-type: none"> <li>501 (Web)(Software)</li> <li>504.2 (Authoring Tool)</li> <li>602.3 (Support Docs)</li> </ul>	Partially Supports	Students' progress can be manually reset.

### Table 3: Success Criteria, Level AAA

Notes: Not Evaluated

# Revised Section 508 Report

Notes:

## Chapter 3: [Functional Performance Criteria \(FPC\)](#)

Notes:

Criteria	Conformance Level	Remarks and Explanations
302.1 Without Vision	Supports	Open Adaptive Tutor has been optimized to work well with screen readers such as NVDA and VoiceOver. Instructors may provide their own content and are responsible for the accessibility of the image contents.
302.2 With Limited Vision	Supports	Open Adaptive Tutor supports screen magnification and zoom functionalities.
302.3 Without Perception of Color	Not Applicable	Open Adaptive Tutor does not require the perception of color for operation.
302.4 Without Hearing	Not Applicable	Open Adaptive Tutor does not require hearing for operation. The platform does not support the usage of audio in the content pool.
302.5 With Limited Hearing	Not Applicable	Open Adaptive Tutor does not require hearing for operation. The platform does not support the usage of audio in the content pool.
302.6 Without Speech	Not Applicable	Open Adaptive Tutor does not require speech for operation.
302.7 With Limited Manipulation	Supports	Open Adaptive Tutor does not require fine motor control and can be accessible via keyboard & touch devices.
302.8 With Limited Reach and Strength	Supports	Open Adaptive Tutor does not require fine motor control and can be accessible via keyboard & touch devices.

Criteria	Conformance Level	Remarks and Explanations
302.9 With Limited Language, Cognitive, and Learning Abilities	Supports	Open Adaptive Tutor provides a minimal and easy interface for users with limited language, cognitive, and learning abilities.

## Chapter 4: [Hardware](#)

Notes: These criteria are all Not Applicable as Open Adaptive Tutor is a web application.

## Chapter 5: [Software](#)

Notes: Criteria in subsections 502, 503, and 504 are Not Applicable as Open Adaptive Tutor is a web application that does not directly access platform accessibility services and does not allow users to author content through the platform.

Criteria	Conformance Level	Remarks and Explanations
501.1 Scope – Incorporation of WCAG 2.0 AA	See <a href="#">WCAG 2.0</a> section	See information in WCAG 2.0 section

## Chapter 6: [Support Documentation and Services](#)

Notes:

Criteria	Conformance Level	Remarks and Explanations
<b>601.1 Scope</b>	Heading cell – no response required	Heading cell – no response required
<b><a href="#">602 Support Documentation</a></b>	Heading cell – no response required	Heading cell – no response required
602.2 Accessibility and Compatibility Features	Partially Support	Open Adaptive Tutor's help document includes an overview of accessibility features. Some input field accessibility features are not described in this document.
602.3 Electronic Support Documentation	See <a href="#">WCAG 2.0</a> section	See information in WCAG 2.0 section
602.4 Alternate Formats for Non-Electronic Support Documentation	Not Applicable	Open Adaptive Tutor does not have non-electronic support documentation.
<b><a href="#">603 Support Services</a></b>	Heading cell – no response required	Heading cell – no response required
603.2 Information on Accessibility and Compatibility Features	Supports	Open Adaptive Tutor's support team can provide information about accessibility features of the product.

Criteria	Conformance Level	Remarks and Explanations
603.3 Accommodation of Communication Needs	Supports	

## Legal Disclaimer (Open Adaptive Tutor)

© 2022 Open Adaptive Tutor, All rights reserved. The names of actual companies and products mentioned herein may be the trademarks of their respective owners.

THE INFORMATION AND MATERIALS PROVIDED IN THIS DOCUMENT ARE "AS IS" WITHOUT WARRANTIES OF ANY KIND INCLUDING WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF INTELLECTUAL PROPERTY. Accuracy and completeness of the information or materials on this document is not warranted. The information shall not be construed as product specifications for purposes of any warranty of compliance with product specifications in a given contract. Changes may be made to the information on this document or to the products described in them, at any time without notice. The information and materials on this document may be out of date, and no commitment is made to update the information and materials. Open Adaptive Tutor specifically disclaims any liability with respect to this document and no contractual obligations are formed either directly or indirectly.

Voluntary Product Accessibility Template® and VPAT® are registered trademarks of the Information Technology Council (ITI).