SoftChalk Accessibility at TxDLA 2017

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Table of Contents

SoftChalk & Accessibility
Main Considerations
Use Headings
Quizpoppers or Test Questions
Alternative Text for Images
Color Contrast and Other Template and Style Properties
Hyperlinks
SoftChalk Cloud
Opening a class on the SC Cloud
Certificate of Completion
Additional Accessibility Tips and Guidelines
Left Justify most Text and Objects
Tables for formatting
Video
Coding Tips
JAWS Tips for Training
Outstanding Accessibility-Related SoftChalk support tickets
Tools to Help you Evaluate and Create Accessible content
SoftChalk & Accessibility
http://softchalk.com/products/cloud/accessibility/  SoftChalk’s own statement about accessibility. They acknowledge it’s always a work in progress.

Here are the direct links to their archived webinars about accessibility:

http://softchalk.com/webinar/adding-accessibility-to-online-courses-making-your-online-course-accessible-for-all-types-of-learners/  Jump to 8 or even 9 minutes to skip the advertisements and intro.

http://softchalk.com/webinar/accommodating-other-students-with-disabilities-beyond-the-need-for-screen-readers/  This one was down as of 3/21/17; we submitted a ticket about it.

Main Considerations
We are trying to develop training that works for EVERYONE. There are several groups that need special consideration, some of which are users of Accessible Technology (AT):

- Blind users
- Low Vision users
- Keyboard-only users
- Deaf Users

Following Accessible Design principles helps all these users AND improves the training for other users too.

Use Headings
Using headings (Heading 1, Heading 2, Heading 3) on each page helps you organize what you are sharing. But headings also help a blind user navigate your page. Just making up your own headings (“pseudoheadings”) by bolding and changing the font size doesn’t cut it.

Headings also help Softchalk create a table of contents and the “on this page” sidebar.

Quizpoppers or Test Questions
Quizpoppers vs Quiz Groups

Individual questions are better than quiz groups.
Why? Two reasons:

1. Feedback. In a quiz group, the feedback for each answer is found with that answer. So after taking ten questions, the blind user has to find their way back to each question to figure out whether they got the question right. With individual questions, the feedback is more immediate and easier to find.

2. Navigation. When you check answers in a quiz group, JAWS jumps back to the top of the page, so the learner loses their place in the training.
**Embedded is better than pop-up**

Pop-up quiz questions look cool on the page, JAWS can read them, but it’s an extra step to get them closed at the end (the close button is not at the bottom so you have to go find it), and when you close the popup, JAWS jumps back to the top of the page, causing a lot of wasted time for the JAWS user.

Quiz Instructions for Screen Reader Users

Screen reader users get used to how to select items that are a set of radio buttons or checkboxes, but SoftChalk doesn’t group the radio buttons, so some instructions can help your screen reader people:

SCREEN READER USERS: Arrow down through the questions. The radio button for each answer comes before the text. To choose your answer, use the space bar or enter key when you hear the text you want to select. After you have made your selection, arrow down and select the Check Answer button before you move to the next question. Feedback is found directly below the Check Answer button after it is selected.
Helping a JAWS user (and the developer and everyone else) find the next question easily

JAWS users get good at skipping through the training in various ways. One way is to jump from heading to heading (pressing the H key does this). Putting a title before each question that is also a heading makes it easier to find and navigate the quiz questions, especially if the user has to go back and try again.

1. Put a title before each question, labeling it as question 1, question 2, etc.
2. Make these titles heading 3s so JAWS users can easily navigate to the next question.
3. Put an “end of quiz” as a heading 3 at the end of the set of questions to easily tell when the quiz is over.

Asking good questions

Compare these two multiple choice questions:

1. The acronym TGIF stands for "Thank Goodness _____________ _____________"
2. What are the last two words in the acronym TGIF?
Listening to a screen reader read this convinces us – the first one is not ideal for screen readers (audio clip).

So... avoid “fill in the blanks” in the way you write your question prompt. Rewrite them to be actual questions (rather than statements with blanks) whenever possible. If you must use fill in the blank, use a “sentence completion” Quizpopper or a “multiple blanks” quizpopper, not a multiple choice quizpopper.

Which Quizpoppers should you use?

When you select the “keyhole” icon, a new window opens with this content:

This is an alternate content page containing a Crossword Activity. It has opened in a new window. Here are the clues. Preceding each clue is the number of letters in the answer.

Clue 1: 16 letters. a communication technique used when a counselor listens and provides feedback to the consumer.
Clue 2: 7 letters. a way of treating or thinking of someone.
Clue 3: 15 letters. the counselor supports the consumer unconditionally no matter what.
Clue 4: 7 letters. the ability to share and understand feelings of another person.
Clue 5: 12 letters. avoids vague or ambiguous information. Focuses on specific relevant information.
Clue 6: 13 letters. professionally challenging a consumer to encourage insight, growth, or change.

Is this accessible? Is it equivalent? Does it provide an interaction? Is there a way for the user to get a score?

Scorebox issue

The persistence of the score box not only interferes with a user’s view of the page when using a browser’s native screen magnifier (like Ctrl +), but also disrupts focus for a JAWS user who uses the tab
key to go from object to object. Because the floating box usually sits near the bottom of the page, it can cause the JAWS user to skip over the entire body of the page.

**Alternative Text for Images**

**Best practices**

1. Put a period at the end of every alt text, even if it is just one word. This causes the screen reader to pause briefly, making it easier to tell that the alt text has ended.
2. If using acronyms or initialisms, put a space between each letter so JAWS will say it letter by letter. Alternatively, if it is a pronounceable acronym like NASA, ensure JAWS is reading it correctly by listening with JAWS and adjusting the spelling as needed (NOTE: experienced JAWS users can set up their custom acronym definitions so this step wouldn’t be necessary for them).
3. Rarely if ever use the Long Description. It creates a hyperlink to a new web page that opens up. Terrible example:

![Alternative text: two people talking, Long description: one in a wheelchair](image)

Perhaps the long description would be a good idea for a really complex infographic image, so a blind user could read all the data in the graphic. Another example might be a screenshot of a spreadsheet or graph. However, Softchalk doesn’t really give you the space you need to type in or format paragraphs of information.

**Color Contrast and Other Template and Style Properties**

**Pick a template with good color contrast**

Our Agency standard is to pass the WCAG “AA” color contrast standard for both large and small text (i.e., to pass small text standard even for large text like headings).

**Colour Contrast Analyser**

Colour Contrast Analyser is from Australia, hence the British spelling.

We use this tool all the time. It’s in the screenshots that follow. It will run from a flash drive so you don’t have to install it if you don’t want to. Here’s where to get it:

http://www.visionaustralia.org/digital-access-cca
Test your Style Template

You can do a rough check in the Style Properties dialog box.

In this case the regular headings fail but the designer headings pass. If you really like the rest of the template, you can adjust the colors in the StyleBuilder.

Careful with Gradients and Patterns, as well as tiling images in the Banner and Footer.
It’s not just contrast, it’s also business and distraction under the text.

This gradient passes in the Stylebuilder when I check the darkest and lightest parts, but be sure to check it out in a real preview too. There are plenty of gradients that don’t pass color contrast.

Careful with tiling images. This next one looks great on a huge monitor, but has problems on a laptop.
Don't show page numbers in Style Properties

Avoid checking this box!

Showing numbers in Style Properties gives you this in the header:

Page 9 of 22
JAWS reads those numbers on every page, including the vertical bars. Very repetitive.

**Table of Contents**

If you choose a dropdown menu, but not a Table of Contents Page, SoftChalk makes the Dropdown menu invisible to JAWS. If you have both, SoftChalk treats the Dropdown Menu as a hyperlink to the TOC page. This is kind of cool, but the user may not realize they are being moved away from their current position.

**Hyperlinks**

**Open most links in a new window**

If you expect the user to return to the current page, then select “Open link in a new window,” so that closing that window brings them back to where they were in the SoftChalk training. Not opening in a new window will replace your SoftChalk training with the external link they just clicked. The user might have difficulty getting back to the training, have to start the training over, or end up closing the browser tab completely.

Exceptions to this would include bookmarks within the same training.
Also tell your user that a link will open in a new window. That helps the blind user know what is happening.

**Descriptive link or exposed URL?**

Best way to insert a hyperlink (show of hands?)

1. Expose the link? sites.google.com/site/lukesfreewareandtechtips/jawstipsforsoftchalk.

Best is both, whenever possible. See our top tips below.

**Top tips for hyperlinks:**

- Avoid “Click here to find out more about taking SoftChalk Training with JAWS.” When JAWS users bring up a list of hyperlinks they will get a list that sounds like this: “here here here here.” This gives them no meaningful information. Furthermore, a single word hyperlink is a significantly smaller target for a mouse user to hit, so it is less user friendly.
- Giving a meaningful description for the link is most helpful for JAWS users because JAWS tells them both what the link points to (in English) as well as the URL and is especially helpful if they “skim” the links by bringing up a list of links (which pulls the link out of its paragraph or sentence context).
- Tell your user if a link will open in a new window, as a part of the meaningful description. That helps the blind user know what is happening.
- Spelling out the actual URL (“exposed URL” or visible web address) is the only way someone who prints the page out or screenshots the page (or converts it to braille) would be able to access the
Furthermore some “techies” like studying the URL to tell them the domain name and the page name.

- Help reduce cognitive load for your users by taking off the “http://” part, and the www part (do sites still use that?) unless the URL won’t work without it. Test it!
- Avoid duplicating links for JAWS users by not hyperlinking the exposed URL. So your final product will look like this: Tips on taking TWC T&D Online Training with JAWS (opens in a new window)(sites.google.com/site/lukesfreewareandtechtips/jawstipsforsoftchalk)

**Short URLs?**

If you are trying to use a descriptive link AND an exposed link, you might consider using a short URL, created by using a service like bit.ly or tinyurl.com. Google also has its own URL shortening service.

The authors like a service called tiny.cc. Unlike services like Google, you can specify your own ending for the URL. Even better, unlike any other service we’ve found, you can go back later and edit the target of these short URLs (as long as you sign up so it remembers your “tinies”). This can be a real help later, if the target address of your link changes. You can fix your broken link at tiny.cc instead of having to go in and edit your training.

One disadvantage of short URLs is that they hide the true identity of the target site. Some people hate this, and sometimes filters may block them. You can help a little by using a meaningful short code, like this one: tiny.cc/JAWSsoftchalk or tiny.cc/lukefree.

With any short URL service, test what you’ve created behind whatever firewalls and with whatever restrictions your organization places on those who will be taking your CBT.

**Links for emails and downloadable documents (pdfs, word)**

For **emails**, you choose the Mailto: option and Do NOT open the link in a new window. It will open up your mail client anyway, so opening a new web page just leaves it blank. See the Coding Tips section for a neat trick for email links.

For **word documents or pdfs**, go ahead and use “Open in a new window” since modern browsers today often open these documents in the browser instead of in the native application.

**SoftChalk Cloud**

**Opening a class on the SC Cloud**

When the lesson first opens, a window appears over the training that is inaccessible to screen readers. JAWS just starts reading the training, not the window overlaying the lesson. That continue button is the one that links the training to the SC cloud.
In the previous window (when first signing in to launch the training, add text like this:

Enter [your login credentials]. Click View Content to proceed. For help, [your help contact info].

If you are a JAWS user, once the training begins, press B, and then press the Continue button before starting the training.
B brings up the next button and therefore shows the Continue button.

Here’s another option:

JAWS lets you bring up a list of frames on a page, or jump from one frame to another. The keystrokes to do so are:

- Insert+F9 will bring up a list of frames.
- Press M to jump from frame to frame.

This has the advantage of the user being able to read the text in that floating window.

**Certificate of Completion**

Printing the Certificate of Completion is a concern for keyboard users and Screen Reader users. It sometimes prints fine, and sometimes only prints the instructional text at the top, but not the certificate.
To help, you might suggest that your students print their score receipt. Enable this in the Package dialog box (see screenshot on page 9 of this handout).

**Additional Accessibility Tips and Guidelines**

**Left Justify most Text and Objects**
Screen magnifier users (those with certain visual impairments) blow up the screen with special tools (like ZoomText) so that sometimes only a few words at a time are visible.

If you randomly have some objects right justified then it’s easy for the screen magnifier user to miss them completely.

In the image below, imagine that ZoomText is only showing you the part of the screen that is found within the double red squares. You see some titles, and a big blank space. Would you know to look to the far right for the quizpopper to click?

This is why Softchalk puts the bottom navigation on the left. Good job Softchalk! On the other hand, this is another thing we don’t like about the Score Box (also seen in the screenshot below).
Tables for formatting

We often put text and images into tables (typically hiding the borders) to assist with formatting in SoftChalk. But it may not really be necessary. And if you decide to use tables for any purpose, the following discussion argues that you should avoid “table width: absolute.”

With Absolute width, you set the width (by sliding the right margin to where you want it) and it stays there no matter what.
Example with a table 2: 75%

A student with a disability is defined by law as:
- An individual, age 18 through 21 in Texas, who is eligible for and receiving special education or related services in accordance with the Rehabilitation Act and the Individuals with Disabilities Education Improvement Act (IDEA), Title II of the Rehabilitation Act, or Section 504 of the Rehabilitation Act or
- An individual, post-graduation through age 22, with a disability as defined under Section 504 of the Rehabilitation Act, who is preparing for and engaging in post-secondary education or work experience.

Example with a table 3: 100%

A student with a disability is defined by law as:
- An individual, age 18 through 21 in Texas, who is eligible for and receiving special education or related services in accordance with the Rehabilitation Act and the Individuals with Disabilities Education Improvement Act (IDEA), Title II of the Rehabilitation Act, or Section 504 of the Rehabilitation Act or
- An individual, post-graduation through age 22, with a disability as defined under Section 504 of the Rehabilitation Act, who is preparing for and engaging in post-secondary education or work experience.
Absolute (the top one) gets cut off on the right side,

**Video**

**Basic Guidelines**

- Captions
- Accessible Player
- Audio Description

**2 Concerns:**

- Accessibility for blind
- Accessibility for deaf

**Video Accessibility for Blind**

- SoftChalk built in player is not accessible (Insert/Media). JAWS cannot “find” the play button.
- Link directly to mp4 (can also be right-clicked and downloaded for playing offline).
- Link to an accessible player (AFB player, but it doesn’t handle captions).
- Link to YouTube or embed from YouTube.
- Don’t set video to autoplay – it will talk over JAWS.
- Consider Audio Description if the narration or dialog alone doesn’t allow a blind user full understanding. [https://www.youtube.com/watch?v=O7j4_aP8dWA](https://www.youtube.com/watch?v=O7j4_aP8dWA) [https://en.wikipedia.org/wiki/Audio_description](https://en.wikipedia.org/wiki/Audio_description) [http://www.vsatx.org/aboutUs.html](http://www.vsatx.org/aboutUs.html)


Able Player (I couldn’t get this to work but it sounds even better) [http://ableplayer.github.io/ableplayer/](http://ableplayer.github.io/ableplayer/)

**Video Accessibility for Deaf**

- Captions – closed or open? Depends on your player.
- Who else does this help?
- You can create captions from scratch in Youtube if it’s your own video
- Also edit or repair YouTube’s Auto Captions

**Coding Tips**

**Bullets and numbered lists**

Spacing is too small in SoftChalk. Two options (and one bad one).

**First option** (most common), avoid putting a “carriage return” enter key between bullets. This changes the bulleted list from “bulleted list of 4 items” in JAWS to four different bulleted lists, each containing one item.

**Second option** is to insert a manual line break after each bullet (Shift + Enter). In html this looks like:

```
Item 1 <br>
```

The full picture looks like this:

```
<ol>
  <li>Reports<br>
  </li>
  <li>Case Management<br>
  </li>
  <li>VR Application to Closure Snapshots</li>
</ol>
```
This method avoids breaking the list up. The problem is that browsers may see those breaks and just remove them on the fly, so then you’re back to square one with the bullets still close together, even though it looks better in SoftChalk create.

**Third option:** In the html code, try adding this to the beginning of the html code for EVERY bullet or number:

```html
<li style="margin-bottom:10px;">  

FYI copying and pasting from Word didn’t work for me, because of the “smart quotes.” I had to type the first one in manually and then I could copy and paste from that. Example

<table>
<thead>
<tr>
<th>Before:</th>
</tr>
</thead>
</table>
| ```html
<ul>
  <li>Reports</li>
  <li>Case Management</li>
  <li>VR Application to Closure Snapshots</li>
</ul>
``` |

<table>
<thead>
<tr>
<th>After:</th>
</tr>
</thead>
</table>
| ```html
<ul>
  <li style="margin-bottom:10px;">Reports</li>
  <li style="margin-bottom:10px;">Case Management</li>
  <li style="margin-bottom:10px;">VR Application to Closure Snapshots</li>
</ul>
``` |

Two tips:

- Depending on your font size you could increase that 10px number to something higher
- You don’t really need this margin code for the last bullet in the list, since there’s already some space built in after a bullet list.

**Eliminating related videos at the end of embedded YouTube video**

```html
<iframe width="640" height="360"
src="https://www.youtube.com/embed/DxclH-EMrmE" frameborder="0"
allowfullscreen></iframe>

The only edit you need to make is to add six letters of text to the end of the video name, (?rel=0) as highlighted and bolded below:

```html
<iframe width="640" height="360"
src="https://www.youtube.com/embed/DxclH-EMrmE?rel=0" frameborder="0"
allowfullscreen></iframe>
Email hyperlink tip

mailto:training.development@twc.state.tx.us?subject=Diabetes Training for Rehabilitation Professionals Info

This fills out the To: field in the email as well as the subject line.

Do not choose “open in a new window.”

JAWS Tips for Training
This is a work in progress, but offers some good tips for JAWS users taking SoftChalk Training from the SoftChalk Cloud. I challenge you to find a resource like that anywhere else!

https://sites.google.com/site/lukesfreewareandtechtips/jawstipsforsoftchalk

Outstanding Accessibility-Related SoftChalk support tickets
SoftChalk #15113-33620 The Score Box that automatically appears in the bottom right hand corner of each course page is impeding the view for the user who may have to use a magnifier.

The persistence of this score box not only interferes with a user’s view of the page when using a browser’s native screen magnifier (like Ctrl +), as mentioned in the original ticket, but also disrupts focus for a JAWS user who uses the tab key to go from object to object. Because the floating box usually sits near the bottom of the page, it can cause the JAWS user to skip over the entire body of the page.

Please add this information to your enhancement request and specify that this is not only a usability issue but an accessibility issue as well.
SoftChalk #15113-33171 – JAWS users unable to get started and finish training from SoftChalk cloud.

Our JAWS users are having some issues with using Softchalk with JAWS.

Since it doesn’t start tracking a user’s progress until they click “Continue”, and many JAWS users don’t know that popup is there, we are relying on them to send us their certificates so we can update their training records. In the event they did not print the certificates, we have no proof of them taking the training, so they will have to retake the training.

Also, at the end when you press Finish and then the window pops up. What’s happening is that JAWS is reading what's in the background, not the popup, so the users aren’t aware they can receive a score receipt, and do not know that their score was submitted.

SoftChalk #15113-27394 – Unable to control font size in Quizpoppers [CLOSED – converted to enhancement request]

Default font size in quizpoppers is less than accessibility standard 12 point. There is no way to change this in SoftChalk.

SoftChalk #15113-34239 – Completion certificate doesn't always print if using keystrokes or JAWS

Details: I'm trying to ensure that JAWS users can perform all necessary functions in a softchalk training launched from our SC cloud. If a user right-clicks on the image of the certificate they are fairly assured of getting a printout of the certificate. However, in my testing when printing by using ctrl + p, results are very mixed. If I print immediately it seems to print OK, but then if I go back and attempt to change the orientation of the paper, then all I get is the instruction text at the top, and no certificate.

Tools to Help you Evaluate and Create Accessible content

Web Accessibility Checkers

Web Access Toolbar: http://www.visionaustralia.org/digital-access-wat for Internet Explorer (up to 11 I think).

Jim Thatcher’s Favelets: http://jimthatcher.com/favelets/ for any browser, and work with offline and intranet content. Save his links as favorites, then just select them when you are viewing a web page.

Contrast Analyzers

Colour Contrast Analyser

I use this one all the time.

http://www.visionaustralia.org/digital-access-cca