



Texas School for the Blind and Visually Impaired Outreach Programs

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Learning Management Systems: What TVIs Need to Know

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Objectives

- Identify the benefits and challenges of LMSs for students with visual impairments
- Consider options for collaboration with general education teachers in order to facilitate your student's use of a LMS
- Share ideas on improving our students' virtual learning experience

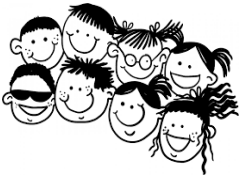


Figure 1 Cartoon of eight smiling children's faces

Write in Chat

On your caseload ...

1. The **grade** of the youngest student who is using a Learning Management System
2. Is the content on a Learning Management System **accessible and usable** to the students?
3. Does anyone work for a district that does **not** use Learning Management Systems?

Learning Management Systems



Figure 2 Three pictures: young girl writing on a sheet of paper; finger reading braille; young boy with glasses sitting next to a toddler and looking at a book

Why bother?
Literacy

School Tasks



Figure 3 Four pictures: pen on a writing pad; computers and cloud computing; microphone; 2 raised hands

- Reading
- Writing
- Collaboration: in-person and online
- Other tasks

Tasks remain the same

Tools change

LMSs

- Wide variety used in K-12 education
- Provide opportunities to create and deliver content, and tracking student progress
- Support in-person classroom instruction and hybrid/remote instruction and learning
- Include videos, digital materials, web links, a space to comment, share ideas and/or collaborate

Benefits of LMS

- Ease of creating and adjusting content
- Tracking student progress
- Communication: interactive, feedback, share ideas, collaborate, etc.
- Allows for synchronous and asynchronous learning
- An option to continue instruction and learning during COVID

Common Features

- Links to learning objectives and state standards
- Engage students' learning, participation and collaboration
- Flexible access (e.g. computer, tablet, phone)
- Most likely, graphical

Challenges of LMS

For student with visual impairments:

- Content may be inaccessible: images, videos, charts and graphs, others
- Maintaining students' attention and engagement
- Lack of support for students who need braille and tactile graphics
- Use with AT to access/navigate the LMS

A Big Challenge



Figure 4 Picture of 2 hands on a QWERTY keyboard

Lack of **keyboarding** skills

Does your district offer **keyboarding** as a course?

Yes No

Expectations of Teachers

- Learn the LMS
- Use it for instruction, track student progress using assessments, communication, etc.
- Create content and materials within the software
- Enhance student learning by using different types of educational materials (e.g. text documents, online resources, videos)

Expectations of TSVIs

- Learn the LMS
- Teach students with VI to navigate the LMS
- Teach students to access the LMS using specialized software and hardware
- "Fix" inaccessible content for the student with VI
- Provide support for the student during instruction

Gaps

Lack of understanding:

- Students with VI need time to learn about the LMS, including a preview of the LMS, if possible
- Some students need plenty of practice to become efficient in navigating/using the LMS
- Specialized software may not work well within the LMS
- Accessibility ... what is **accessible** may **not** be **usable**

What do we do?

Tips for Posting Accessible Content

- **Styles and Formatting:** Use 12pt or larger & san serif fonts (Arial)
- **Structure:** Include Headings and Lists
- **Alt Text:** Describe images in context
- **Hyperlinks:** Use words for links

- **Avoid Floating Items:** Use templates when creating PowerPoint or Google Slide Presentations
- **Video:** Be sure that instructional videos have Closed Captions and Audio Descriptions

Considerations

- Learn about the LMS that your student must use
- Collaborate with GenEd Teachers
 - Explain your student's unique access
 - Invite your student, if appropriate, to talk about access and usability
 - Discuss access to files, discussion groups, web information, download/upload files
 - Establish clear communication and use it consistently
- Work as a team, including the student and family members

Work as a team ... how?



Figure 5 Picture of thinking bubble

Learn Together

- General accessibility (e.g. colors, contrasts, color-blindness, captions vs. audio descriptions, keyboard commands)
- Low vision: online simulators <https://www.eyesiteonwellness.com/eye-diseases/> or examples of low vision <https://webaim.org/articles/visual/lowvision>
- Blindness access: listen to audio text, alt-text, graphics, images, buttons, keyboard access, color cues, etc.

Suggestions

Short-term ...

- Team up to ensure student success
- Solicit student feedback
- Consider support from administrators and family members
- Coach students to speak up about the type of accessibility that they need
- Keep the **main thing** as the **main thing**

Suggestions

Long-term ...

- Find ways to collaborate with the individuals who make decisions about LMSs
- Ask about LMS's support for accessibility
- Explain accessibility requirements for students with visual impairments

- Does the district have accessibility standards included in their purchasing criteria and policies?

Suggestions

Long-term ...

- If possible, have students address accessibility challenges to administrators
- Explain technology requirements (e.g. use language that IT personnel can understand)
- Continue to advocate for accessibility in your district/organization; a systemic change takes time
- Celebrate accomplishments

What can you or your team do?



Figure 6 Picture of a question mark

Resources

WebAIM: Introduction to Web Accessibility: Visual Disabilities

<https://webaim.org/articles/visual/>

National Center on Accessible Educational Materials

<https://aem.cast.org/>

AEM Center: Vetting for Accessibility

<https://aem.cast.org/acquire/vetting-accessibility>

Voluntary Product Accessibility Template (VPAT)

<https://www.tpgi.com/voluntary-product-accessibility-template-vpat-guide/>

Resources

20 Tips for Teaching an Accessible Online Course

<https://www.washington.edu/doit/20-tips-teaching-accessible-online-course>

Teaching an Accessible Online Course (video)

<https://www.youtube.com/watch?v=rmJiDCRNb9E>

TSBVI Short-Term Programs online (playlists, videos)

<https://www.youtube.com/user/TSBVISTP/playlists>

Training and Tutorials from Texas

<https://gov.texas.gov/organization/disabilities/training>

In Closing ...

“Even when you think you’re not good at something, you can still plunge into it wholeheartedly and stick to it.”

Carol Dweck. Mindset: The New Psychology of Success

Thank You



Figure 7 TSBVI logo

Thank you for attending this webinar.
See you again soon.

Creating Accessible Documents

[See the Video](https://library.tsbvi.edu/Play/12802) (library.tsbvi.edu/Play/12802)

Accessible Document Components

- Structure
- Styles and Formatting
- Alternative Text for Images
- Meaningful Hyperlinks
- Simple Tables
- Things to Avoid

Structure: Building Your Document

- Use the built-in tools on the Productivity Ribbon
- Headings – make an outline
- Lists – numbers or bullets
- Paragraphs
- Columns (Alt-Y2, YV)
- Page breaks
- [How to use the Productivity Ribbon](https://gov.texas.gov/disabilities/accessibledocs) (gov.texas.gov/disabilities/accessibledocs)

Styles and Formatting

- Fonts – **san serif** or serif
- Font Size – 12 point minimum
- Underline for links only
- Line spacing & Cell Spacing
- Color
- Full justification is hard to read for almost everybody in the universe
- ALL-CAPS ARE HARD TO READ
- *Italics are hard to read*

Alternative Text for Images

- Captions – Title of picture, copyright, etc.
- Alternative (Alt) Text – describe the image
 - 120 characters
 - Use **description** field
 - “Eye Candy” put 1 space in **description**
 - If text is in image, all text in the image is in Alternate Text
 - Context – Answer “What information is the image conveying?”

Meaningful Hyperlinks

- Use words for links. e.g. [TSBVI Home Page](#)
 - Web address is not meaningful to people. e.g. <http://www.tsbvi.edu>
- Make it easy to read and navigate.
- Place web address without “http://” in parentheses next to descriptive link for print purposes. e.g. [TSBVI Home Page](#) (**www.tsbvi.edu**)
- Lists of web addresses are not helpful for navigation
 1. Select text to become a link.
 2. Right click – choose hyperlink, or click Link on Productivity Ribbon, or press Control-K
 3. Enter URL in the Address box at bottom of Dialog
 4. Hit Enter

Tables

- Header row
- Break across pages
- Caption
- Cell margins

Things to Avoid: “Floating” things

- Text boxes
- Watermarks
- DropCaps
- TextArt
- QuickParts

Resources

- [Microsoft – Creating Accessible Word Documents](https://bit.ly/1kkkqIS) (bit.ly/1kkkqIS)
- [WebAIM – Microsoft Word](http://webaim.org/techniques/word/) (webaim.org/techniques/word/)
- [NCDAE – Microsoft Word Cheatsheet](http://ncdae.org/resources/cheatsheets/) (ncdae.org/resources/cheatsheets/)
- [Portland Community College – How to Make a Word Document Accessible](http://www.pcc.edu/resources/instructional-support/access/word.html) (www.pcc.edu/resources/instructional-support/access/word.html)
- [Penn State – Image ALT Text](http://accessibility.psu.edu/images/alttext/) (accessibility.psu.edu/images/alttext/)
- [Penn State – Microsoft Word Tips](http://accessibility.psu.edu/microsoftoffice/microsoftalttags/) (accessibility.psu.edu/microsoftoffice/microsoftalttags/)
- [ADOD - Accessibility of Office Documents and Office Applications](http://adod.idrc.ocad.ca/) (adod.idrc.ocad.ca/)

Your Student and the Learning Management System:

Ideas for the TVI

General Information

- Name of the LMS
- Ask for access to the LMS
- If necessary, ask for assistance to learn about the LMS
- Check for accessibility information for LMS

Considerations

- Understand how content is being created in the LMS
- Ask if videos will be used
- Talk about accessibility requirements within the LMS for your student:
 - Low vision needs
 - Needs for blindness access
 - If appropriate, have student talk about his/her needs for accessibility

A Plan for Collaboration

- Ongoing communication (following your district's guidelines):
 - Student progress / lack of progress
 - AT assistance, if necessary, during class
 - If AT fails, is there a backup device or a backup plan on what to do?
 - Decide how far in advance to share lesson plans or content (TVIs needs to know so that materials can be collected or vocabulary can be taught before the lesson, and so on)
- TVI's responsibilities (e.g. assistance with material preparation)
- GenEd teacher's responsibilities (e.g. let TVI preview upcoming lessons)
- Solicit student feedback
- If appropriate, use feedback to improve student's experience with LMS

Learning Together

Low vision simulators (example below and other online options)

<https://www.eyesiteonwellness.com/eye-diseases/>

WebAIM Contrast Checker

<https://webaim.org/resources/contrastchecker/>

Designing for Accessibility

https://github.com/UKHomeOffice/posters/blob/master/accessibility/dos-donts/posters_en-UK/accessibility-posters-set.pdf

* Scroll down to locate *Designing for Users of Screen Readers* and *Designing for Users with Low Vision*

Closed Captioning vs. Audio Descriptions

<https://www.livebinders.com/play/play?id=2646921&backurl=/shelf/my#anchor>

Audio Description (clip) Lion King on YouTube

<https://www.youtube.com/watch?v=7-XOHN2BWG4>

Audio Description (clip) The Hunger Games on YouTube

<https://www.youtube.com/watch?v=B8BD9txkGL4>

Keyboard Commands

https://support.microsoft.com/en-us/topic/dcc61a57-8ff0-cffe-9796-cb9706c75eec#WindowsVersion=Windows_10

* Select a few commands for trial.

Other Resources

My Notes