Accessibility the easy way

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Accessibility overview
Moodle is designed to be accessible by default to the widest possible audience.
This means that both the application and the content is designed to be perceivable, operable, understandable and robust according to the definitions provided by WCAG 2.0.
Objectives (POUR)

- Perceivable
- Operable
- Understandable
- Robust

Webaim POUR guide
Browser access features

- Chrome
- Firefox
- Edge (Microsoft)
Activity 1

- Open your device browser
- Explore the accessibility options in either:
  - Chrome
  - Firefox
  - Edge (Microsoft)
Activity 1 - online guides

- BBC accessibility guidelines
- UMN accessibility guidelines
Moodle and Accessibility
Accessibility Statement

- Established practices
- Screen-reader support
- Conformance to standards
- WCAG 2.0, ATAG 2.0, ARIA 1.0, Section 508 (US)
- Discussions
- Known issues
- Areas of ongoing development
- - See Moodle Docs - Accessibility
Activity 2

- Go to the Moodle Docs Accessibility statement link here
- Bookmark for later use!
Development Guidelines

- We publish guidelines on our documentation for developers:
  - Moodle Accessibility Collaboration Group
  - Moodle-related accessibility coding guidelines
Coding guidelines

- Use CSS, but still use headings, strong and emphasis
- Avoid using background images for important information
- Image alt and title attributes
- Links and buttons should be selectable and easily clickable
- Support dynamic interaction with ARIA attributes
- Use labels with inputs
- Use appropriate page titles
- All pages should be navigable using just a keyboard
- Avoid using colour alone to express meaning
- Use sufficient colour contrast when adding colour to text. Role for button-type links
Activity 3

- Register on moodlecloud.com (existing or new)
- Login
- On Dashboard, use Tab key to navigate through all elements on the page, what happens?
Content development
Atto Editor

Custom editor built for Moodle with a focus on
● Great user experience
● Producing accessible content

Features include:
● Accessibility checker
● Prompts when adding media
● Feature rich equation editor (Using Mathjax.org)
Atto Editor
Atto Editor additional options
General Text Tips

Content with an accessible hierarchy and layout will be clearer for everyone to navigate and improves their reading experience

● Use editor headings
  ○ Ensure headings are nested in sequence, ie H2, H3

● Use descriptive links
  ○ Instead of displaying link as https://www.youtube.com/watch?v=XXX, hide it behind “W3C Web Accessibility Introduction”, screen reader friendly

● Use consistent naming

● Use editor lists (ordered or unordered)
  ○ DON’T insert blank lines between list items, as this usually breaks the lists for screen reader users
Atto Editor Accessibility Checker

This checks for:

- Images with missing alt text where the aria role is not marked as presentation
- Text with an insufficient contrast ratio compared to the background (WCAG AA)
- Long blocks of text with no headings
- Tables with no captions
- Tables with merged cells
- Tables with no row/column headers
Atto Editor Accessibility Checker

Accessibility checker

The colours of the foreground and background text do not have enough contrast. To fix this warning, change either foreground or background colour of the text so that it is easier to read.

1. Dublin city

The Dublin Convention centre is situated beside the Liffey in Dublin city.
Activity 4 - Text

- Paste in text (no styling)
- Run Atto checker
- Save and display...

- Re-edit with appropriate headings, lists, links etc
- Save and display...
Multimedia
Image Alt Text
General Image Tips

Add images using the editor tools, as this ensures that accessible data is prompted for.

- Image Alt descriptions
- Option “Description not necessary” for decorative images, e.g. section dividers
- Navigational graphics, such as Home for instance, should have alt of “Home”, not “Little yellow house”
- Complex images, images including in-depth information, e.g. STEM workflows, require longer text explanations alongside them (too long for alts)
Activity 5 Images

- Upload image
- Configure with suitable settings
- Upload 2 more images
Multimedia

Moodle comes with video.js with built in support for

- Captions
- Subtitles
- Chapters
- Descriptions

Able Player is an alternative with heavier focus on accessibility

- https://github.com/moodlehq/moodle-media_ableplayer
General Multimedia Tips

Add multimedia using the inbuilt tools, as this ensures that accessible data is prompted for.

- Ensure delivery method, e.g. video.js, is accessible
- Use captions and / or subtitles
- Use audio descriptions when needed, e.g. <creak of door opening>
- Use tools, such as YouTube, to automatically produce your captions and subtitles, and check!
- Including text transcripts is very useful
Media Player - Link

Insert media

Source URL
https://qa.moodle.net/draftfile.php/26/user/draft/262187005/moon_phases-1.m4v

Enter name
moon_phases-1.m4v

Insert media
Media Player - Video

Insert media

- Link
- Video
- Audio

Video source URL

Add alternative source
  - Display options
  - Advanced settings
  - Subtitles and captions

Insert media

Appearance
Media Player - Display

Insert media

Link Video Audio

Video source URL

Add alternative source

Display options

Size

Thumbnail URL

Advanced settings

Subtitles and captions

Insert media
Media Player - Advanced

Insert media

- Video source URL
- Add alternative source
  - Display options
- Advanced settings
  - Show controls
  - Play automatically
  - Muted
  - Loop
  - Subtitles and captions

Insert media
Media Player - Subtitles

Insert media

- Add alternative source
  - Display options
- Advanced settings

Subtitles and captions

Subtitle track URL

Language: English (en)

Add subtitle track
Media Player - Subtitles

This is a page with a video example in it.

Really!

Appearance

Common module settings
00:01.000 --> 00:05.000
This is a sample video from www.eso.org

00:05.100 --> 00:08.000
The earth is spinning, very fast. That is the moon in the background.
The earth is spinning, very fast. That is the moon in the background.
Activity 6 Video

• Upload video file
• Configure with provided VTT files for multilingual subtitles
Activity 7 Audio

- Upload audio file
- Configure with provided VTT files for multilingual subtitles
Tables

Create table

Caption

Caption position

Define headers on: Columns

Number of rows: 3

Number of columns: 3

Create table
General Table Tips

- Keep them simple and logical
- Use captions
- Use column/row headers
- Don’t merge cells
- Don’t use for page layout, only for tabular data
- Don’t use nested tables either!
Activity 8 Tables

- Create table of data
- Please create a replica of the data on screen...
# Barcelona weather

<table>
<thead>
<tr>
<th>Day</th>
<th>Forecast</th>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday</td>
<td>Scattered Thunderstorms</td>
<td>79</td>
<td>69</td>
</tr>
<tr>
<td>Saturday</td>
<td>Sunny</td>
<td>82</td>
<td>70</td>
</tr>
<tr>
<td>Sunday</td>
<td>Sunny</td>
<td>82</td>
<td>70</td>
</tr>
<tr>
<td>Monday</td>
<td>Thunderstorms</td>
<td>83</td>
<td>71</td>
</tr>
</tbody>
</table>
Activity 8 Tables

Create table

Caption: Barcelona weather

Caption position: Top
Define headers on: Both
Number of rows: 5
Number of columns: 4

Create table
STEM
Atto Equation Editor

- Feature rich editor
- Great looking equations that are fully accessible to standard accessibility applications
- Using mathjax.org to expose questions to assistive technology
Atto Equation Editor

Edit equation using TeX

\sum_{a,b}

Equation preview

\sum a, b \downarrow

An arrow indicates the position that new elements from the element library will be inserted.

Save equation
WIRIS Plugins

\[ x^3 + \sqrt{y} \]

Accessibility
\( x \) to the power of 3 plus square root of \( y \)
Timing Overrides
Quiz – Overrides

Override

Override user
Search

Require password
Click to enter text

Open the quiz
11 May 2017 04 26

Close the quiz
11 May 2017 04 26

Time limit
1 hours

Attempts allowed
Unlimited

Revert to quiz defaults

Save
Save and enter another override
Cancel
Assignment – Overrides

Week 1 Assignment

Override

Override user

No selection

Search

Allow submissions from

13 October 2016 00 00

Due date

20 October 2016 00 00

Cut-off date

11 May 2017 04 25

Revert to assignment defaults

Save Save and enter another override Cancel

Enable Enable Enable

Enable

Enable
Third party plugins
Accessibility Block
Integrations
BigBlueButton

Bigbluebutton accessibility statement
ReadSpeaker

Readspeaker.com moodle guidelines
Activity 9 Recap

- In a group discuss what should be in a simple accessibility checklist
Activity 10

- Take time now to look at your own courses that you have, and start putting together a list of fixes to do (if any).
Questions?