



Accessibility the easy way

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#mootes18

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

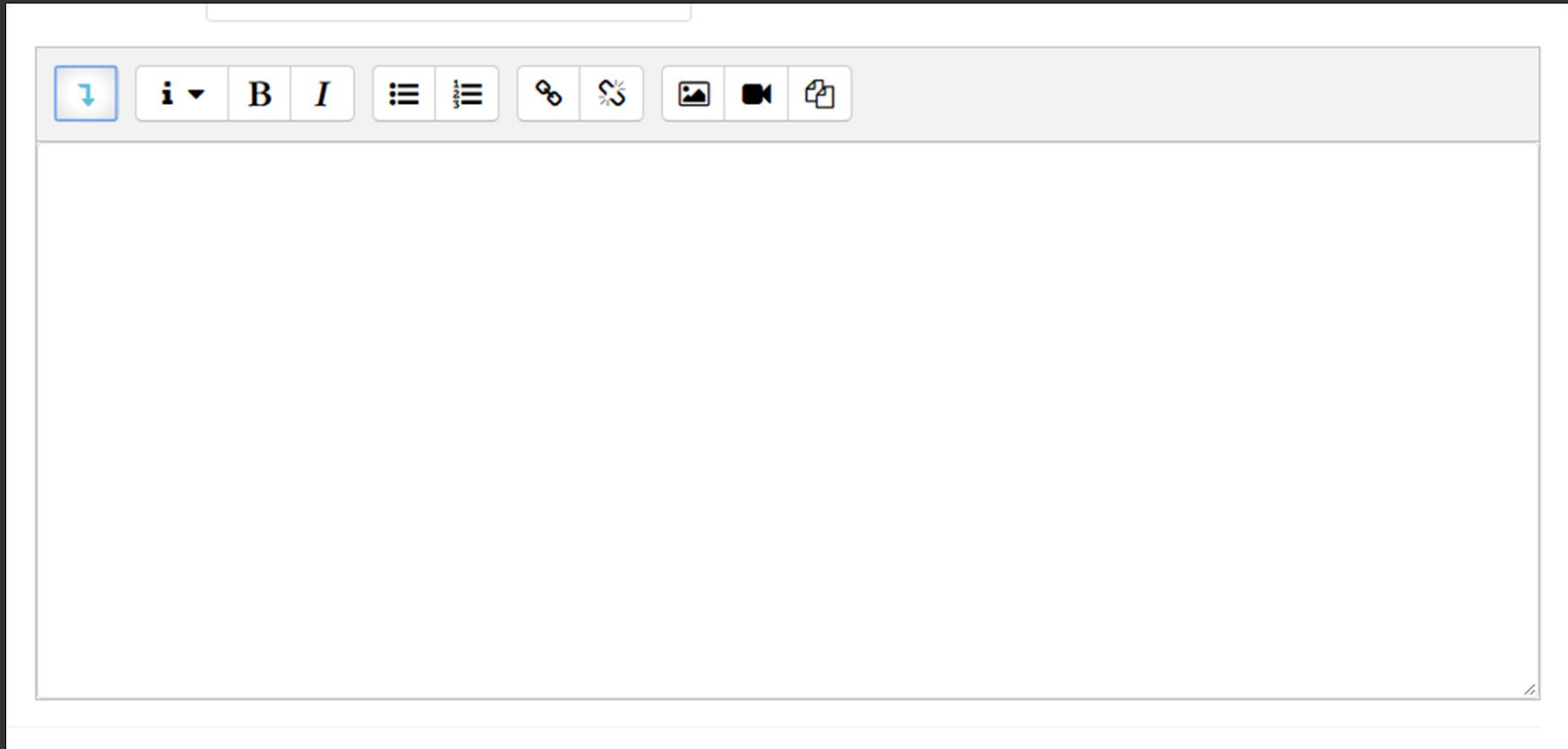
Custom editor built for Moodle with a focus on

- Great user experience
- Producing accessible content

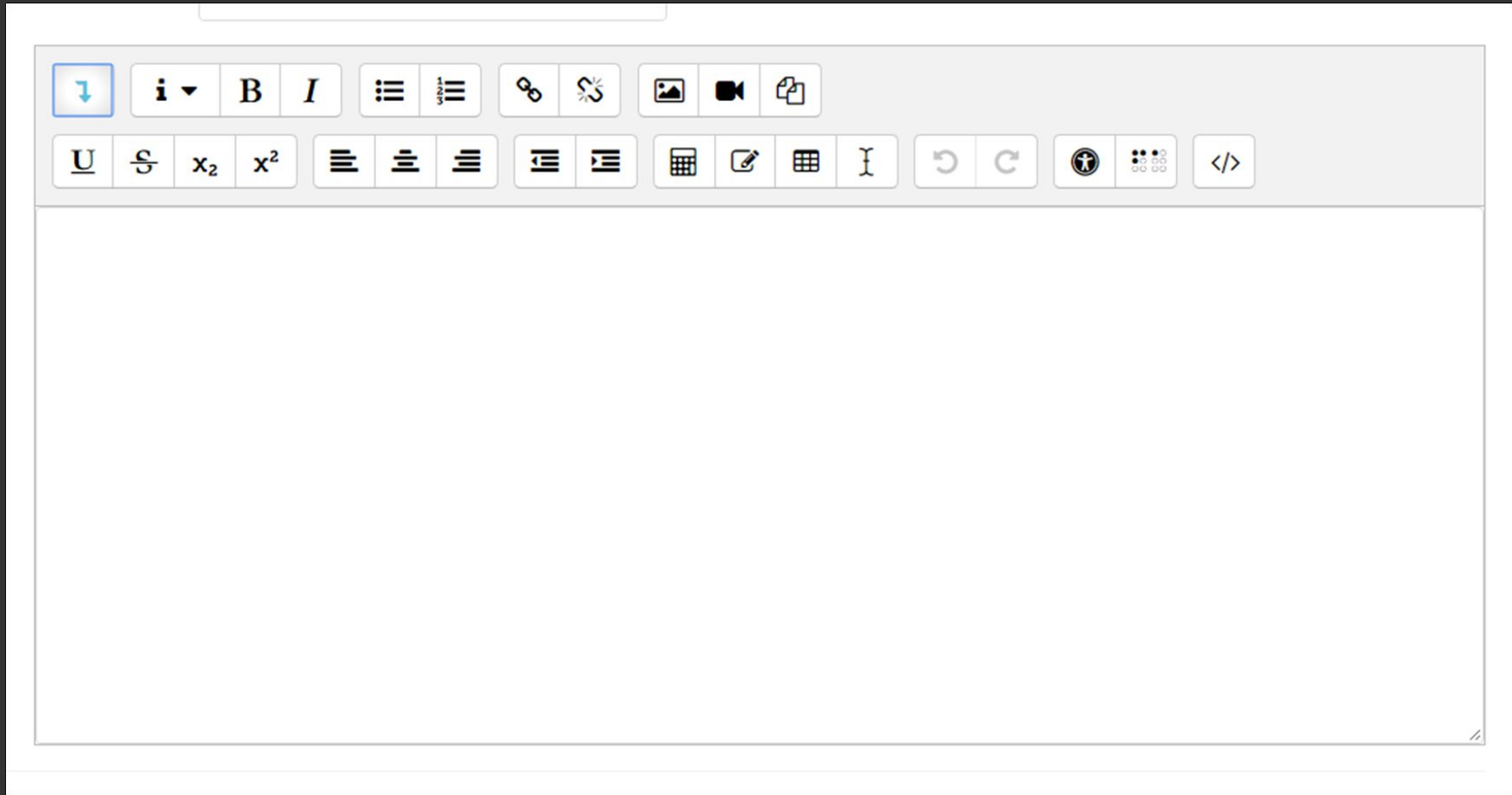
Features include:

- 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

new Label ?

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

Image properties

Enter URL

https://qa.moodle.net/draftfile.php/5/user/draft/541632121/Dub

Browse repositories...

Describe this image for someone who cannot see it

Dublin Convention Centre

☐ Description not necessary


Size

200 x 150

☒ Auto size

Alignment

Bottom



Save image

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

▼ Content

Page content

Insert media

Link

Video

Audio

Source URL

https://qa.moodle.net/draftfile.php/26/user/draft/262187005/m

Browse repositories...

Enter name

moon_phases-1.m4v

Insert media

Media Player - Video

▼ Content

Page content

Insert media

Link

Video

Audio

Video source URL

Browse repositories...

Add alternative source ?

▸ Display options

▸ Advanced settings

▸ Subtitles and captions ?

Insert media

▸ Appearance

Media Player - Display

Content

Page content

Insert media

Link Video Audio

Video source URL

Browse repositories...

Add alternative source ?

▼ Display options

Size

x

Thumbnail URL

Browse repositories...

▶ Advanced settings

▶ Subtitles and captions ?

Insert media

Media Player - Advanced

▼ Content

Page content

Insert media ×

Link Video Audio

Video source URL

Browse repositories...

Add alternative source ?

▶ Display options

▼ Advanced settings

☒ Show controls ☐ Play automatically ☐ Muted ☐ Loop

▶ Subtitles and captions ?

Insert media

▶ Appearance

Media Player - Subtitles

Content

Page content

Insert media

[Link](#)[Video](#)[Audio](#)

[Add alternative source](#) ?

[▶ Display options](#)

[▶ Advanced settings](#)

[▼ Subtitles and captions](#) ?

[Subtitles](#)[Captions](#)[Descriptions](#)[Chapters](#)[Metadata](#)

Subtitle track URL

[Browse repositories...](#)

Language

English (en)

Label

☐ Default


[Add subtitle track](#)

[Insert media](#)


Media Player - Subtitles

Page content





This is a page with a video example in it.



0:00 / 0:46

Really!

► [Appearance](#)

► [Common module settings](#)

Sample WebVTT

WEBVTT

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

new

Create table



Caption

Caption position

Define headers on

Number of rows

Number of columns

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...

Activity 8 Tables

Barcelona weather

Day	Forecast	High	Low
Friday	Scattered Thunderstorms	79	69
Saturday	Sunny	82	70
Sunday	Sunny	82	70
Monday	Thunderstorms	83	71

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

Equation editor

Operators Arrows Greek Symbols **Advanced**

$\sum a, b$ $\sqrt[n]{b+c}$ $\int_a^b c$ $\iint_a^b c$ $\iiint_a^b c$ $\oint a$ (a)

$[a]$ $\{a\}$ $|a_1 \ a_2 \ a_3 \ a_4|$ $\frac{a}{b+c}$ \vec{a} $\binom{a}{b}$

$\begin{bmatrix} a \\ b \end{bmatrix}$ $\begin{Bmatrix} a \\ b \end{Bmatrix}$

Edit equation using [TeX](#)

$\backslash\text{sum}\{a,b\}$

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

The screenshot displays the WIRIS editor interface. At the top is a toolbar with various mathematical symbols and functions. Below the toolbar is a large text area containing the mathematical expression $x^3 + \sqrt{y}$. Below this text area is a section titled "Accessibility" with a red circle around it. This section includes an icon of a person with a cane and the text "x to the power of 3 plus square root of y". At the bottom of the interface is a "Format" section with radio buttons for "MathML" (selected) and "LaTeX". Below the format section is a text area showing the MathML code for the expression:

```
<math xmlns="http://www.w3.org/1998/Math/MathML"><msup><mi>x</mi><mn>3</mn></msup><mo>+</mo><msqrt><mi>y</mi></msqrt></math>
```

Timing Overrides



Quiz – Overrides

▼ Override

Override user



Student 10, student10@example.com

Search



Require password



[Click to enter text](#)  

Open the quiz

11 ▾

May ▾

2017 ▾

04 ▾

26 ▾



☐ Enable

Close the quiz

11 ▾

May ▾

2017 ▾

04 ▾

26 ▾



☐ Enable

Time limit



1

hours ▾

☒ Enable

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 ▾



☒ Enable

Due date

20 ▾

October ▾

2016 ▾

00 ▾

00 ▾



☒ Enable

Cut-off date

11 ▾

May ▾

2017 ▾

04 ▾

25 ▾



☐ Enable

Revert to assignment defaults

Save

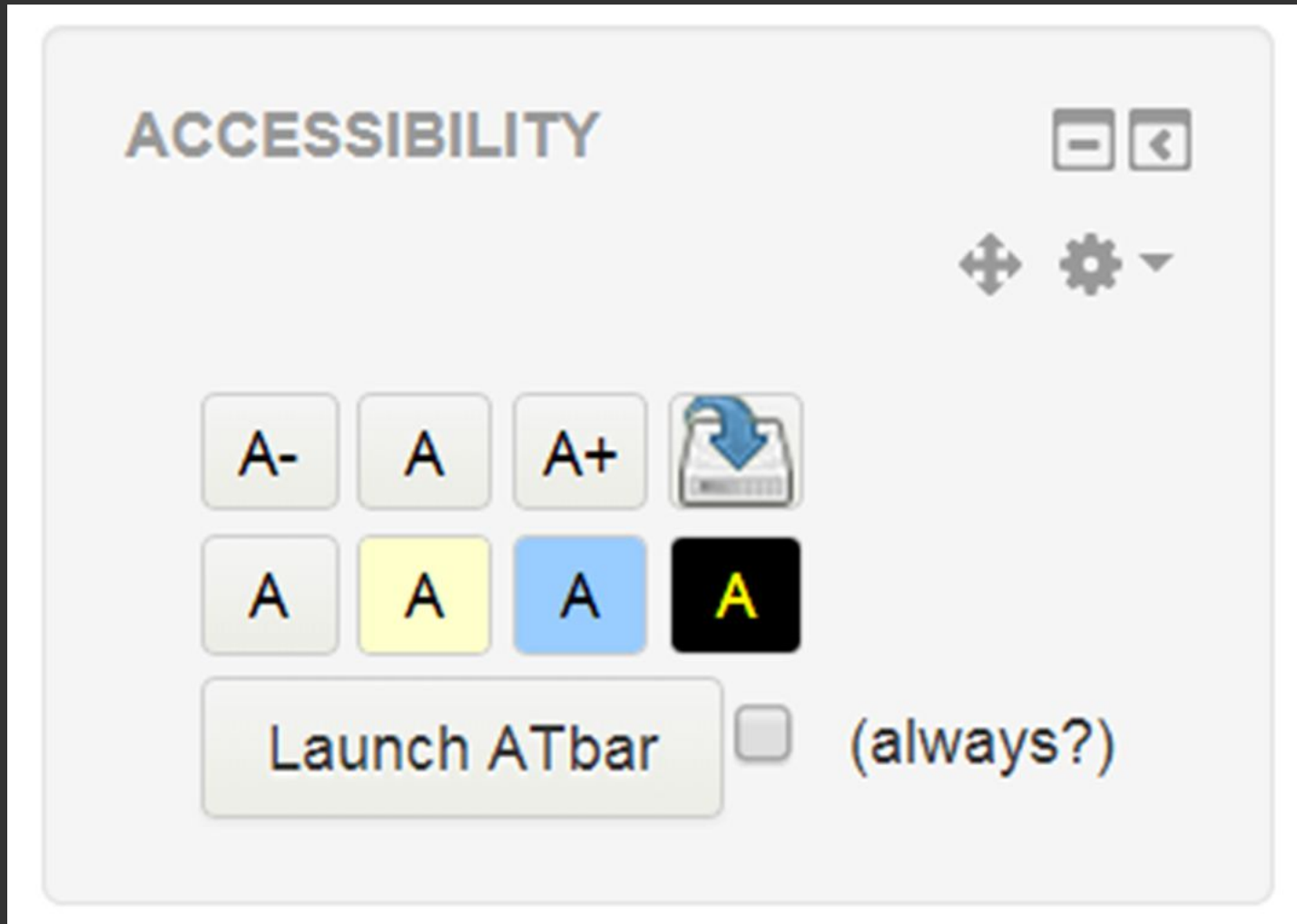
Save and enter another override

Cancel

Third party plugins



Accessibility Block



Integrations





BigBlueButton



[Bigbluebutton accessibility statement](#)

ReadSpeaker



[Readspeaker.com moodle guidelines](https://www.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?



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