Expert review – Learning Zone

Contents

About this expert review

This report is an expert review of our eLearning website, Learning Zone, evaluating the users experience against our design principles, usability heuristics and accessibility guidelines.

The observations and issues observed in this review will be labelled to mark the level of severity: **low / medium / high** and the category of usability the observation/issue falls into **usability / learnability / findability / accessibility**.

Issues throughout the site

Links and buttons

The links and buttons do not follow the GDS standards, and the styling is inconsistent throughout the website. The current styling isn't clear enough for users to spot where they are, even for those without visual impairments. For example:

- the colour of linked text varies throughout the website with some set as black and others as blue
- many of the links are not underlined such as in the navigation bar and footer
- links and buttons across the site don't have sufficient contrast when active, hovered or in focus, and in some instances there is no visible change in appearance or focus state at all

Severity: high, type: accessibility, findability

How to fix it

- update all links to be blue and underlined (or white for dark backgrounds)
- update the current focus state to our pattern of yellow and black, which is also in line with GDS principles and WCAG 2.2 – see examples of this focus state pattern in fig 1 for linked text and fig 2 for buttons
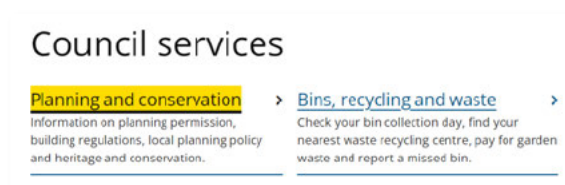
Figure 1 - link focus state on northyorks.gov.uk
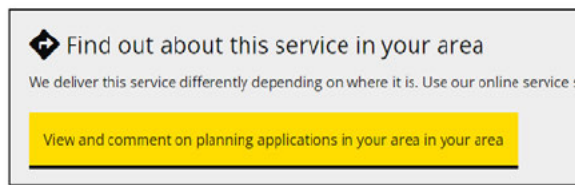
Figure 2 - button focus state for northyorks.gov.uk

Title case

There is a lot of title case used throughout the website for headings and titles. This can be difficult to read for users as capital letters can disrupt the flow.

Severity: low, type: usability

How to fix it

Change the headings and titles to sentence case. For example, "Online training and learning resources".

External links

There are some instances of external links opening in a new tab, such as the "How to use Learning Zone" and some online courses. This can be disorienting and disrupt the users flow, whilst causing accessibility problems for people who cannot visually perceive that the new tab has opened.

Severity: low, type: usability, accessibility

How to fix it

I would recommend removing this feature. However, if need a link to open in a new tab, you should:

- include the words 'opens in new tab' as part of the link
- include ***(opens in new tab)*** as part of the link text, so that part of the link text is visually hidden but still accessible to screen readers

Note: Do not use an external link icon.

Headings

The styling of headings varies across different pages, reducing visual coherence and making navigation less intuitive. The headings vary in colour, sizes, and styles from page to page. Consistent heading styling contributes to a clean, professional look, enhancing the overall aesthetic and user experience.

Severity: medium, type: usability, findability

How to fix it

- standardize heading styling - apply a uniform style for headings across the entire site to maintain visual consistency

The heading structure is also inconsistent and doesn't follow a logical order. For example, some pages start with an h3 instead of an h1, which can confuse screen readers and affect SEO.

Severity: medium, type: accessibility, usability, findability

How to fix it

- implement a consistent heading hierarchy - ensure all pages start with an h1 followed by h2, h3, etc

GDS standards

The Learning Zone exhibits several issues concerning typography, layout and overall visual consistency when compared to the UK Government Design System (GDS). To follow GDS standards, the design should be visually and functionally consistent across all pages, ensuring users have a seamless experience.

The GDS emphasizes consistent use of typography with clear hierarchy and sufficient whitespace, ensuring readability and a cohesive look. The Learning Zone website has inconsistent heading styles and font usage. For example, the course search page uses different font sizes and weights for headings than the home page, disrupting the visual hierarchy.

The Learning Zone has variations in button styles, colour schemes and spacing. Fig 3 shows the four different button styles on the Learning Zone. This can be confusing for users and reduces the sites professionalism. Refer to the GDS design principles on visual consistency.
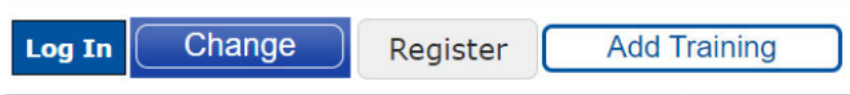
Figure 3 - various buttons styles used on the Learning Zone

How to fix it

- I recommend applying a uniform style guide for typography, buttons, and overall layout to enhance visual consistency – use the GDS system as a template to ensure these styles follow the WCAG 2.2 criteria
- Revise heading structures to follow the hierarchy, starting with h1

By aligning with the GDS guidelines, the Learning Zone website can enhance its usability, accessibility, and overall user experience. For detailed guidelines, visit the GDS Manual.

One question per page

When the user is filling out fields on the site, particularly the registration and evaluation forms, there is always more than one section or question on the page. This goes against our principle in forms to have one-question-per-page.

This can result in several errors and usability issues because of:

- increased cognitive load due to viewing multiple fields on a screen
- the high possibility of making slip-style mistakes and entering the wrong information into the wrong field
- the increase in the use of mobile devices- scrolling through a long page of small fields is more difficult on small screens

Severity: medium, type: usability, accessibility

How to fix it

Adjust the input areas so that they follow the one-question-per-page pattern.

Real-time validation

Form errors are shown after the form submission. Users must wait until they submit the form to find out about errors, leading to frustration and inefficiency.

Severity: medium, type: accessibility, findability

How to fix it

Implement real time validation to catch errors as users' type.

Specific field type validation

Each form on the website is lacking in validation for specific field types. For instance, the telephone number allows the input of letters which is not appropriate for a field meant to collect numerical data only.

Allowing incorrect data formats can lead to submission errors, data inconsistency, and user frustration.

How to fix it

- implement input type restrictions for emails and telephone numbers
- provide clear error messages, displaying examples of the correct format the user must input

Severity: medium, type: accessibility, findability

Help and documentation

The current system is set up in a way where users need to navigate away for help to the guidance document. Leaving the current page to look through a guidance document can lead to frustration from the users. To prevent this, include guidance prompts within the pages.

Severity: medium, type: usability, findability

Header and footer

Logged in status

The "log out" button does not appear for former county council colleagues. Fig 4 shows that the log out option is accessible from the navigation bar, for a colleague using a former district device. Whereas fig 5 shows that this feature disappears when the same college uses a new device from the IT team at County Hall. This suggests that the website is not fully optimised for all platforms and browsers.
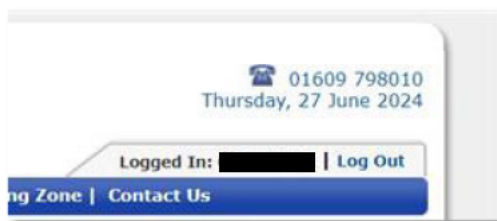

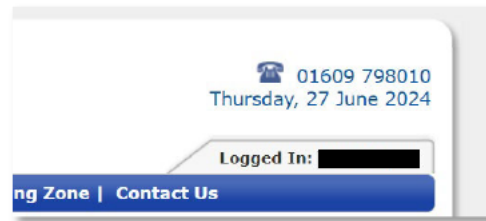*Figure 4 - Logged in status from former-district devices*   *Figure 5 - Logged in status from former-county devices*

Severity: medium, type: usability, findability

How to fix it

Ensure the website is fully optimised for all devices and browsers, so that all users have full accessibility and consistency.

Website footer

The website footer has not been updated for the Log in page. These link to the old NYCC pages, which no longer exist, leading to a "Page not found" error.

The link named "Legal information" takes users to the terms and conditions page. The use of different terminology could cause confusion for users. Any linked text should clearly indicate where it is taking users.

Severity: low, type: usability, learnability

How to fix it

- update the footer for the log in page
- consider renaming the "Legal information" link to "Terms and conditions" to ensure consistency

Header links

The website header contains elements that should include links. The usual standard for websites is to add a link from the logo image to the home page. Users may attempt to click the logo to view the home page. The mobile number at the top right should also be linked up, so users can easily call the number.

Severity: medium, type: accessibility, usability

How to fix it

- add a link to the home page from the logo
- add the link tel: ███████████ to the telephone number

Log in / sign up

Blue text

The full sign-up form uses blue text (except for the terms and conditions). Blue is commonly associated with hyperlinks, when it's used for non-link text, it can confuse users and lead them to think the text is clickable, when its not. Also, this may cause issues from an accessibility standpoint, as visually impaired users may have trouble perceiving blue text. I would stick to black text, avoiding blue unless it's used for a link.

Severity: low, type: accessibility, usability

Password validation

There are several usability issues with the password form field:

- the password field prevents the user from typing in more than 15 characters, but there is no visual que to alert the user if they have hit the limit, therefore users may continue to type without realising
- if the requirements are not met, a generic error message appears, without specifying what is missing
- the "show password" feature does not always appear

Severity: medium, type: accessibility, findability

How to fix it

- notify the user if the max character length has been reached
- tailor the error message to state what exactly is causing an error
- ensure the show password features is working

Home page

Online training and learning resources

This section follows a different pattern to the rest of the website and is unclear to where the links take the users. For example:

- the table format does not match the rest of the website
- each resource needs its own heading
- using images as links make it difficult for users to spot – these should be added as buttons instead

- the use of bold and italic text makes the content difficult to read and causes accessibility issues

How to fix it

- consider adding this section in a list format instead of a table
- add headings for each resource
- add button links
- only add bold text to important words

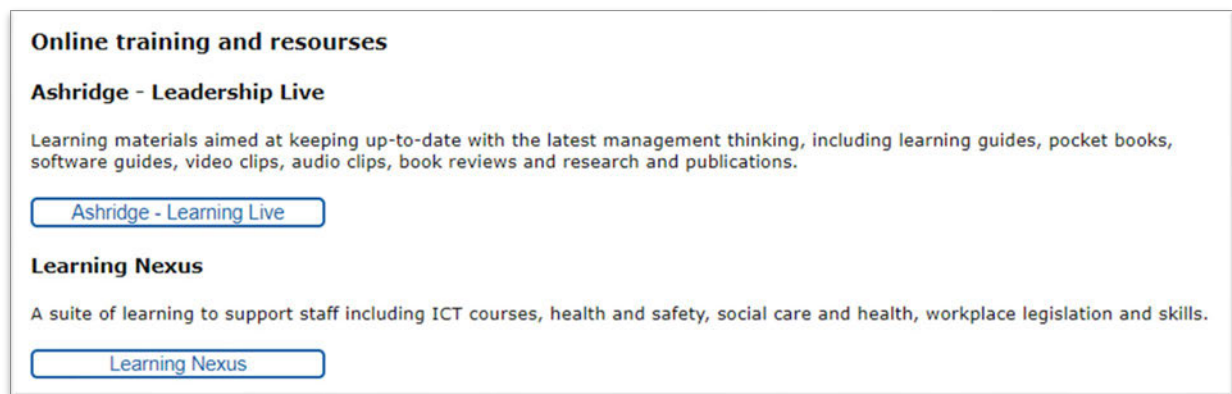See fig 6 for an example of a clearer layout.

Figure 6 - example of a clearer layout for the Online training and learning resources section

Mandatory training

Keyboard only users cannot access the mandatory training accordions when they are collapsed. Users with accessibility issues cannot access the content within these sections, and therefore cannot complete the mandatory training. Users who rely on keyboard navigation cannot access the content with may violate standards set out in WCAG 2.2.

Severity: high, type: accessibility, usability

How to fix it

- use ARIA controls and properties to ensure screen readers can properly interpret and interact with the accordions
- ensure the ENTER and SPACE keys can toggle the accordion by using JavaScript event listeners

The mandatory training links are all presented with the external link icon, even though these all take the users to an internal page. Remove these icons from the links. Note: the new GDS guidelines state to no longer use these icons as they can be confused with the "opens in new window" icon.

Severity: low, type: accessibility, usability

The change in colour for accordions are useful for users to identify if the training has been complete. However, the delay in this colour change can cause confusion for users as they may think that the activity has not registered.

Severity: low, type: learnability, usability

Feedback

The full text under the feedback header is set as an email link. The text is also not styled in a way to indicate that this is a link. The email address should be included, and this should be the only text that contains the link, with visible styling changes.

Reword and style the text in the following way:

> We are always interested to hear your experience using the Learning Zone.
>
> If you have any suggestion you would like us to consider for future development, please email us on ████████████████████████████.

Severity: medium, type: accessibility, usability

Personalisation

The current home page is lacking personalisation and shortcuts. The Learning Zone could be improved by:

- including keyboard shortcuts for frequent users
- adding a "quick access" section to the homepage for "recently viewed courses" or "saved courses", streamlining navigation and improving usability

Severity: low, type: usability

Search for a course

Full course list

If a user would like to see the full list of available courses, they would need to press "Go" with an empty search field. However, some users may not know to do this as there are no prompts anywhere on the page. User may need to easily access the full courses list if they can't remember a specific course name.

The full list of courses should be shown immediately, and then the user can use the search or filter options to narrow the list down.

Severity: medium, type: findability, usability

Search and filter

There should be more filter options available. There are around 450 courses available on the learning zone and the current filtering system is too small in comparison.

- there are only 6 tags to choose from to filter the results
- users can't use the search and filter elements together
- there aren't enough filter categories
- there is no way for users to know that they can search for a course using the event code

Severity: medium, type: findability, usability

How to fix it

- change the current system to allow users to filter the search field with the course tags – currently, both features work in isolation to each other
- add more course tags

- add other filter options – such as, course type, dates, management level
- make it clear that you can search for a course using an event code – you can add placeholder text in the search field (see fig 7)
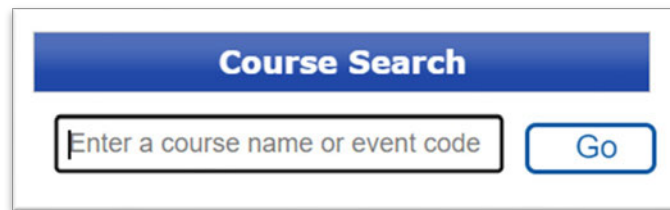

Figure 7 - course search bar with placeholder text

Upcoming course dates

Each course item in the list is either labelled with "Future course dates", "No scheduled course dates" or is blank. These labels are helpful for users to clearly identify which courses to sign up for. However, these labels are not meeting the minimum colour contrast ratio threshold, making it difficult for users with visual impairments to interpret.

Severity: medium, type: accessibility

How to fix it

Change the colour of the text to ensure there is sufficient colour contrast between the text and background.

Course pages

For this review, I randomly selected a handful of course pages, ensuring that I had reviewed at least one if each course type (webinar, classroom, and e-learning event).

Content in accordions

Each course page is templated in a way that the information is split up into dropdown accordions. However, these accordions are completely inaccessible for keyboard only users. Users who rely on keyboard navigation cannot access the content with may violate standards set out in WCAG 2.2.

Severity: high, type: accessibility, usability

How to fix it

- use ARIA controls and properties to ensure screen readers can properly interpret and interact with the accordions
- ensure the ENTER and SPACE keys can toggle the accordion by using JavaScript event listeners
- consider changing the template and removing the accordions all together – there isn't a lot of content on these pages so moving the text to the main body, with correct headings, might be beneficial for user experience as they would no longer need to click through dropdowns to find information

Inconsistent styling and information

There are inconsistencies within each page and between them.

Many course pages have different font stylings caused by text being copied and pasted in. The change in font styles and sizes disrupts the user flow when reading. Ensure that any additional formatting is stripped from the text, so that the only formatting applied are coming from the CSS.

Some pages do not include any contact details whereas other do. Users may have to navigate away from the page to find an email address if they have a query about a course. This may cause user frustration, so consider adding contact details as a standard for each course page.

Severity: low, type: findability, usability

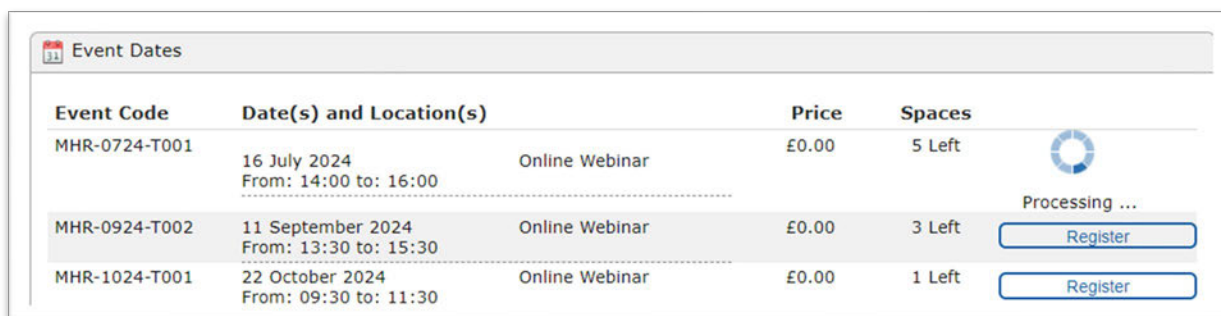## Registering for a course- progress indicator

When selecting a date, the loading image always appear in the first row, no matter which date is selected – see fig 8. This may lead users to believe that they have accidentally clicked on the wrong button.

This register button takes the user to an information page, where they then confirm their selection. However, if a user then decides to go back to the previous page, this loading sign still appears. This may again confuse users to think that something is processing on the page.

Severity: medium, type: usability

How to fix it

- ensure that the loading sign appears next to the correct date
- revert the loading sign when the page is refreshed

Figure 8 - processing bar when choosing an event date

Back button

The "Return to the search page" button is placed on the top right side of each course page. This is a useful feature but could be improved further by changing the positioning to the top left corner instead. Usually, the left side indicates going back and right indicates going forward.

Severity: low, type: usability

My learning record

Find course

The learning record is split up in a table format. The layout is simple and, for most part, easy to read. However, for colleagues who have worked for the council for many years, and have completed a lot of training, locating a specific course may be difficult. There are several ways to improve the findability of a course:

- implement a search bar
- add a "sort by" feature for the column in the table – this allows users to organise the list in alphabetical or date order
- group up events that are part of the same course so you can visually see that they belong together – see fig 9

Severity: low, type: findability, usability

OLINFOSEC	Information Security	20/10/2022	20/10/2022		Certificate
	08 - Cloud services and sharing	20/10/2022	20/10/2022		
	09 - Email accounts	20/10/2022	20/10/2022		
	10 - Devices and apps	20/10/2022	20/10/2022		
	11 - Offline security	20/10/2022	20/10/2022		
	12 - Here to help you	20/10/2022	20/10/2022		

Figure 9 - example of grouping a completed course

Wording

The terms "course" and "event" are both used throughout. Consider only using one term to limit confusion.

Upcoming should be one word.

Severity: low, type: findability

Add training

This page allows for some personalisation through the "Add training" feature. This is useful to keep track of training completed outside of the Learning Zone.

Add training form

Alongside a lack of real time validation and specific field type validation, the forms error prevention could be improved further. When a user attempts to submit the form without filling in the required fields, the error messages appear at the top of the page, rather than beside each field. This makes it harder for the user to read and correct the errors.

Each error message should be placed beside the field it relates to.

Note: these error messages also do not meet the minimum colour contrast ratio threshold.

Severity: medium, type: findability

Lack of error prevention

The "Add training" feature is a way for users to record any training completed outside of the Learning Zone. Therefore, users must manually fill out the details in the form, instead of having a system to pull the data from. This leaves room for user errors. Once a submission has been made, there is no way to go back and edit it. So, if a user makes a mistake, they are unable to fix it.

Consider adding an edit tool, so users can change submissions if needed.

Severity: medium, type: usability

My profile

The "Change" buttons are placed in the top right corner of the table, which makes it easy to spot and clearly indicates which details it will change. However, I would consider changing the wording to "Edit". This label is commonly used to modify existing content. It is a widely recognized term for entering an editing mode. Whereas "Change" might be used to update a setting or option rather than modifying content.

Severity: low, type: usability

Password validation

There are several usability issues with the password form field:

- there is a no real time validation and specific field type validation
- the information tab states that the password must be a max of 15 characters long, but doesn't prevent the user from entering more
- if the requirements are not met, a generic error message appears, without specifying what is missing
- the "show password" feature does not always appear

Severity: high, type: accessibility, findability

How to fix it

- add real time validation and specific field type validation
- notify the user if the max character length has been reached
- tailor the error message to state what exactly is causing an error
- ensure the show password features is working

Contact us

Fillable content

The online form clearly shows what content is fillable. However, having all this content seems redundant as the user cannot edit it, so it seems to just take up space. Including this information causes issues for keyboard only users, as it takes 7 tab presses to get from the telephone field to the enquiry box. Users may feel frustrated and give up before reaching the enquiry box.

Consider removing some of this content, particularly the "Your work address" section as this information is not as important as the users name and email address.

Severity: medium, type: accessibility, usability

Validation

There is no validation for the telephone field. I was able to type in "test" and submit it without receiving any errors, as seen in fig 10 and 11.

Figure 10 - example of words being input to a numerical field

Figure 11 - form submitted successfully without any validation

I suggest adding field type validation to ensure that users can only type in numbered data into this field.

Severity: medium, type: usability

Accessibility

Keyboard only accessibility

Some users can't use a mouse and need to navigate through a website using only a keyboard. You should be able to navigate to everything using just the keyboard. This often means using the tab key, space bar, enter key and arrow keys.

As stated easier in this report the accordions are inaccessible to keyboard only users throughout the website. In addition, there are other areas that cannot be accessed with just a keyboard.

- the "create an account" link from the login page
- the scrollable content (terms and conditions) on the sign-up page

- all tick boxes on the evaluation pages

These must be fixed so that all users can access these areas.

Severity: high, type: accessibility, usability

Zoom and responsiveness

Nearly all elements on the website, such as tables and accordions, are not suitable for smaller screen sizes. The text and buttons sizes are too small and therefore difficult to read or click on. For example, the 'Online training and learning resources' section on the home page have a fixed width/height, making it very difficult to navigate on mobile devices (as seen in fig 12).

Severity: high, type: accessibility, usability

How to fix it

- define grid layouts using percentages rather than fixed widths to allow content to scale
- implement meta tag to control layout on mobile devices: *<meta name="viewport" content="width=device-width, initial-scale=1" />*
- increase the size of buttons and links to make them easy to tap on touch screens
- apply CSS media queries to adjust styles based on screen sizes and device orientation
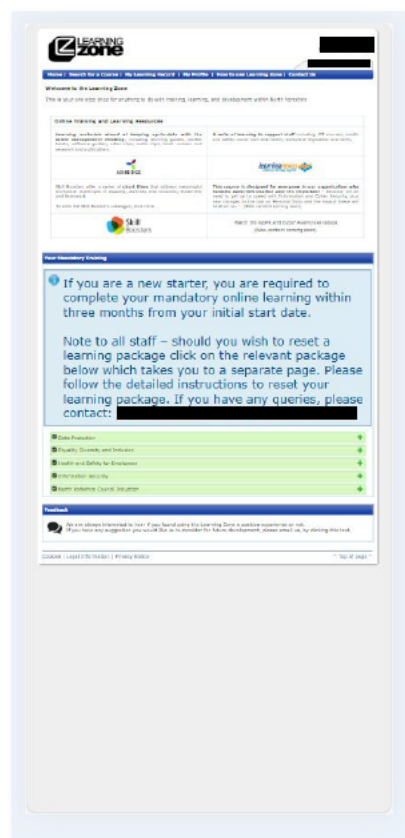

Figure 12 - view of homepage from a mobile device

Axe DevTools

The following usability issues have been found using the Axe DevTools plugin. The **critical, serious,** and **moderate** issues have been listed below. Critical and serious issues should be addressed to ensure the site is WCAG 2.2 compliant and accessible and inclusive for all users.

Alt text

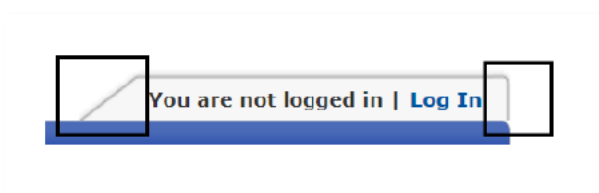**Alt text missing for images around the logged in status bar. (critical)**

Figure 13 - images around the logged in bar that are inaccessible

You will need to fix one of the following:

- Element does not have an alt attribute
- aria-label attribute does not exist or is empty
- aria-labelledby attribute does not exist, references elements that do not exist or references elements that are empty
- Element has no title attribute
- Element's default semantics were not overridden with role="none" or role="presentation"

<html> attributes, landmarks and labels

Every page showed these errors:

- <html> must have a lang attribute – critical
- Select elements (dropdowns in a form) must have an accessible name - critical
- form elements must have labels – critical
- ensure the document has a main landmark - <html> - serious
- all page content should be contained by landmarks - moderate

Heading levels

heading levels should only increase by 1 – moderate

See more information on this in the [Headings](#) section.

How to use learning zone

(Outside of scope)

This section of the website is hosted on the breeze platform; therefore, it is outside the scope of this project. However, there are many usability issues that should be considered.

- the current format (breeze) makes documentation sparse – it requires the content to be simple, so the system is easy to use but this isn't helpful in this context
- the guidance uses old NYCC branding
- different formats used for NYCC and non-NYCC users
  - the non-NYCC content only shows you how to register and not how to use the system
- mostly keyboard accessible, except the annotations within the page that have links
- the wording isn't very descriptive or clear - especially on pages that have annotated images
- there's no way for users to see what section of the guidance they are viewing – progress indicators

- some pages have timed elements that appear – users are unable to skip through this or go back without going to the next page
- navigation menu is hard to spot
- the location of the next and previous buttons can be confusing – when 'next' is not available, the 'prev' buttons moves further right, so if a user is quickly skipping through they may end up pressing the wrong button

High priority areas

1. Accessibility for keyboard only users:
   a. Mandatory training accordions
   b. Accordions on the course pages
   c. The "create an account" link from the login page
   d. The scrollable content (terms and conditions) on the sign-up page
   e. All tick boxes on the evaluation pages
2. Responsiveness across all devices
3. Form validation, including:
   a. Real time validation
   b. Password validation
   c. Field type validation
4. Website styling, focusing on:
   a. Using the GDS guidelines for colour contrast and text sizing
   b. Visible links and buttons when in active, hovered and focus states
   c. Heading structure