

Making Moodle more inclusive: Report

Amy Urry

Action Research Project, PG Cert

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Research question:

To what extent does our Moodle design template support inclusive practice in relation to neurodiverse and disabled students?

Context:

As part of the CSM Digital learning team, it is a large part of my role to work with course teams to redesign or update Moodle pages.

With my colleagues, particularly Sarah Leontovitsch, a pattern has emerged in the way we recommend this is done. Using a co-design approach, we try to make digital accessibility and inclusivity a priority in order to reduce barriers to learning for all students. We are increasingly using this pattern or 'template' for individual courses, with common design features, and it is this current template I wanted to test out more deeply with the participants in this project.

In addition to this, as a team, we are currently working on a cross-college Moodle template which I hope these outcomes will inform.

Participants:

There were six participants in this project. Four are students and two are members of staff. Participant 6 shared their experiences in a slightly different way, and so wasn't asked to complete the questionnaire. Therefore, there are 5 responses to the questionnaire in total.

The Moodle pages of two courses at CSM were used, one is the Foundation course, which has a single Moodle page and has around 600 students, and the other is a BA course, using Course, Stage and Unit Moodle pages, with around 360 students. One member of staff and two students gave feedback from each course.

Although I want to stress that the recommendations for inclusivity and accessibility will be beneficial to all students, it may be useful to know the types of disability or neurodiversity the participants identify with: Two identify as dyslexic, one autistic, three have ADHD and two are blind or visually impaired.

I'm very grateful to all of them for giving up their time to participate in the project.

Summary of findings:

Theme:	Description:	Key takeaways:
1. Moodle plays an important role in learning and teaching.	<p>The central organising concept of this theme is that Moodle plays an important role within the participants' experience of teaching and learning.</p> <p>This role can be broken down into three areas:</p> <ol style="list-style-type: none"> 1. It has a clear and distinct purpose 2. It can offer a flexibility of access which is valued by students and not available elsewhere 3. It has the potential to support a sense a belonging. <p>'Moodle is the platform that links students and tutors together. It's where we share the information that they need to have...like a bridge'. Participant 1</p>	<ul style="list-style-type: none"> • Moodle plays an important role and key content needs to be available consistently and at the right time. • Flexibility of access is important for a wide variety of reasons. We can improve this by adding lecture recordings and improving the user experience on a phone. • Careful use of course banners and customisation on the page, can potentially support a sense of belonging.
2. Organisation of content has a critical impact on the user experience.	<p>The central organising concept of this theme is the significant impact of content organisation on the cognitive load required to use the Moodle page(s). This includes the density of information, clarity of signposting and labelling of documents and the functionality of navigation.</p> <p>'It's like walking through like a kind of a cloudy park... sometimes there's a little bit of visibility and I sort of know where I'm going and sometimes I'm trying to find something but I don't know what it is, and everything is kind of foggy...'</p> <p>Excerpt from Voice drawing.m4a</p>	<ul style="list-style-type: none"> • Consider the density of information and how to mitigate through additional support. • Clear and consistent naming across the course is essential. • Group information systematically – avoid repetition or extraneous information. • Ensure navigational links are simple and functional. • Listen to what students need and correct faults when they happen. • More testing is needed with staff and students on the use of grid/collapsed topics.

Theme:	Description:	Key takeaways:
3. Presentation of information: clean, clear and simple is best.	<p>The central organising concept of this theme is that some features of presentation improve the user experience (e.g. headings and use of colour), and others detract from it (e.g. large amount of text). Clean, clear and simple is best.</p> <p>'I think to have it bare bones, but... you've got what you need, I think that's the best way.' Participant 5</p>	<ul style="list-style-type: none"> • Headings, spacers, bullet points and bold/colour for emphasis are useful. • Text should be kept to an absolute minimum and used only where necessary. • Use of colour is important, and colour-coding would be an improvement. • Maintain sufficient colour contrast. • Clear graphical representations for distinct functions as part of a multi-modal design might be beneficial.
4. Staff guidance, or lack of, makes a significant difference.	<p>The central organising concept of this theme is that Moodle doesn't function effectively in isolation. The wider course team need to have a good understanding of where information sits on Moodle and how it is organised. They need to be able to direct and ensure students are aware of all relevant features. In turn these members of staff need effective training and support to put this in place.</p> <p>'The tutors could definitely be a bit more helpful. They don't really explain things well enough for people who are neurodivergent or... accommodate maybe other people's way of thinking.' Participant 3</p>	<ul style="list-style-type: none"> • Guidance from course staff is essential to access both key course content and features of Moodle e.g. ReciteMe, sidebars. • Course teams need access to regular training (synchronous/asynchronous) to ensure knowledge is up to date and to raise confidence in navigating Moodle. • Accessibility tools need to be more visible to staff and students e.g. through short Moodle and ReciteMe video inductions, CSM newsletter, etc.

Theme 1: Moodle plays an important role in learning and teaching..

The central organising concept in this theme is that Moodle plays an important role within the participants' experience of teaching and learning. This role can be broken down into three areas: firstly, that Moodle has a clear and distinct purpose, secondly, it can offer a flexibility of access which is valued by students and not available elsewhere and thirdly, it has the potential to support a sense of belonging. As one participant put it:

'I think it's an important part of studying because that's where all the information is for classes and I usually leave class early because I work better in really quiet environments, less busy, so I just find what I missed from class on there. I think if that wasn't there I definitely would have failed.' Participant 3

And when discussing their ADHD, another student noted that although they felt their neurodiversity doesn't pose barriers, as everyone is different, Moodle has a key role:

'The way I receive or access course information is my own way but obviously Moodle makes it easy for me to do that.' Participant 5

All five participants who answered the questionnaire Agreed or Strongly agreed that 'Moodle is a helpful tool on my course.'

The importance of the Virtual Learning Environment, or VLE, is supported more broadly too. A 2017 Department for Education report on 'Inclusive Teaching and Learning in Higher Education as a route to Excellence', recommends 'Housing all teaching materials on the virtual learning environment in such a way that students can access them when they are needed, before or after formal teaching' as one of their simple actions to effect significant change in relation to inclusive practice.

A distinct purpose:

All of the participants said that they used Moodle for various purposes; setting up or using submission points, to share or access course materials, to view timetables, share schedules/information for teaching and to book sessions with tutors.

There is often talk of Moodle as 'just a repository', but actually a good repository of key information is important and not easily achievable. This includes good organisation and naming (see Theme 2) but also actually making sure all key content is uploaded/added and it is accessible to staff and students. For users of assistive technology, it is often essential that course information is provided online, rather than a hard copy.

In the majority of examples given, participants said that key content was available on Moodle, on both courses.

'All my stuff's on Moodle, I don't download it because I need space on my computer.' Participant 5

'(Part 2 schedule) is so beautiful because it's so... it just tells you the bare minimum and you can figure out the rest yourself by clicking on the other little tabs and that's perfect.' Participant 2

'I think about Moodle quite a lot when I need to understand what's going on or... because I always try and direct my projects back to the original brief and I try not to lose track of that. So it helps me to go back to the brief quite a lot and just double check, triple check or quadruple check until I'm done.' Participant 5

And a nice summary from a member of staff:

'Moodle is the platform that links students and tutors together. It's where we share the information that they need to have...like a bridge'. Participant 1

There are, however, examples of where this key information either isn't there or isn't locatable. One participant talked about the difficulty of finding up to date timetable changes, and another talked about the difficulty of finding a schedule in the first part of her course which in the end was provided only because of her ISA. These frustrations created considerable difficulty and were largely the result of failings in the organisation/naming of information, compounded by staff not highlighting/knowing where it sits. These issues will be dealt with in Themes 2 and 4.

Potential for flexibility:

One of the key elements of inclusive practice is the ability to offer flexibility, largely in terms of time of access and variety of formats. All student participants talked about regularly accessing information outside of class time. Sometimes this was connected with needing to miss classes, sometimes to find out the schedule/tasks etc. and other times to catch up or revisit particular items.

Although this seems to work well in most instances, a significant failing of Moodle in this regard was the absence of lecture recordings, or where the recordings were provided, the absence of accurate captions, or the recordings expired before the Participant was able to watch it. The impact of this was particularly strong for one student who works as well as studying and can't always attend class:

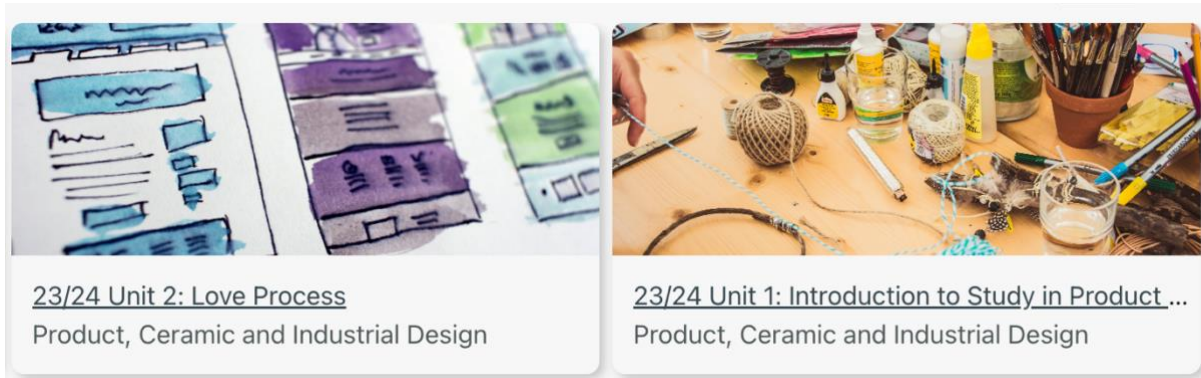
'I feel like I'm missing out because I have to go to work or something.'

'It's nice to be able to get exactly what the lecturers are saying because... the slides don't have as much insight as the lectures do.' Participant 5

Another area where flexibility was lacking was in the ability use Moodle effectively on a phone. Most student participants avoided it, believing the user experience would be poor, one citing the poor display of embedded Padlets (where resources are stored on her course), and videos, and others pointing out the absence of a Moodle app at UAL.

Interestingly, no-one mentioned using Ally which is a tool specifically integrated into Moodle to provide alternative formats and therefore specifically to offer flexibility. I suspect this is due to a lack of awareness about what Ally can do from both staff and students, which applies also to the new accessibility toolbar located in Moodle (ReciteMe). This will be discussed in Theme 4 but is an example of the way the themes are interconnected.

Sense of belonging:



Screenshot of the Moodle dashboard showing two Moodle pages in Card format, where the image is above and the title of the course shown below.

As discussed above, there are key functions that Moodle performs, but in my view there is also potential for a role beyond this. One participant talked about the use of distinct images for different pages and the presence of more of a tutor voice on the pages:

'I don't know if this was on purpose but the personalisation by different course made it nice because it kind of gave you a nice feeling. You clicked on **your** course and it's like, oh yes, this is familiar.' Participant 4

This participant compared the look of Moodle from the previous year (without the Moodle template) and made this comment specifically about the use of the course banner:

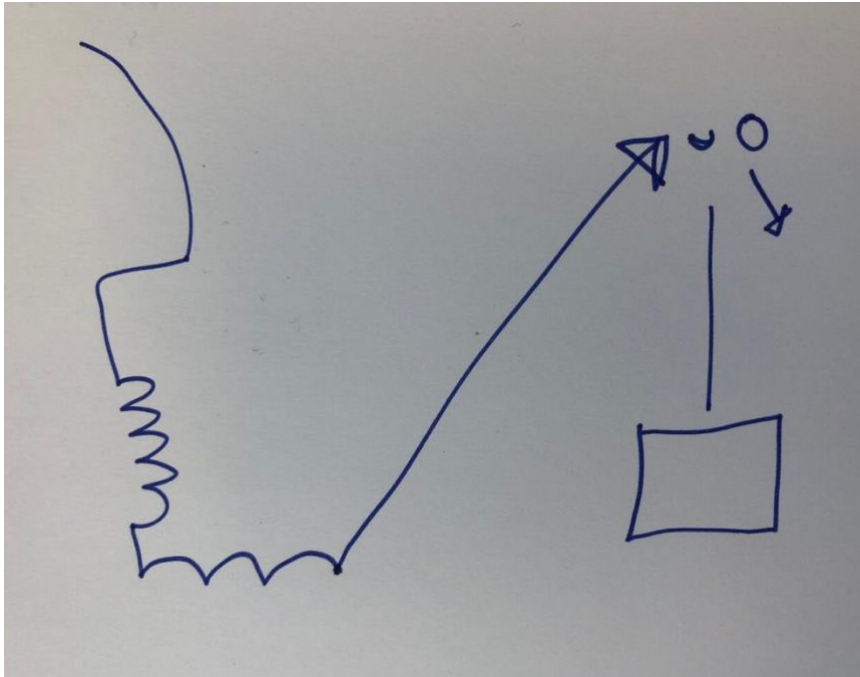
'I would recognise that page as being mine, for my course.' Participant 4

Another participant discussed the importance of the banner for recognition and distinction from the previous year, but also the potential to develop a sense of identity for the students and staff. There isn't really enough evidence from this project to be sure about this element, but it's something that feels instinctively right and I would be interested in investigating further.

Key takeaways:

- Moodle is important - content needs to be available consistently and at the right time.
- Flexibility of access is required for a wide variety of reasons. We can improve this by adding lecture recordings and improving the user experience on a phone.
- Careful use of course banners and customisation on the page, can potentially support a sense of belonging.

Theme 2: Organisation of content has a critical impact on the user experience.



Drawing from a participant showing the route through the different sections on Moodle, across the tab displays and over to the right-hand sidebar to find the 'yellow box'.

The central organising concept of this theme is the significant impact of content organisation on the cognitive load required to use the Moodle page(s). This includes the density of information, clarity of signposting and labelling of documents and the functionality of navigation.

Whilst this will be important for all staff and students, those who use assistive technology, or who are fatigued/stressed, may find it harder to process (especially written) information.

As the website Neurodiversity Design Principles puts it: 'Learning content architecture should also be considered, course titles, course codes, taglines, and irrelevant images/ graphics/ clipart must also adhere to rigorous decision making - if it does not inform the learning, it's more likely to distract from it.'

One participant describes her experience of using Moodle, in which there is a lack of clarity in instruction and also signposting: [Interview 2 - voice drawing.m4a](#)

Density of information and navigation:

Navigation is of course a thread that underpins many elements of Moodle design and usage and we will look at it again in Theme 3 and in the support provided by staff in Theme 4.

In this theme it might be useful to consider the different structures of the two courses focussed on. The first is the large course with just one Moodle page, housing a complex course structure with four specialisms and multiple pathways. When the page was redesigned, it was decided to keep the content on one page as there are also a lot of areas

that are common for all students. At the time feedback from student representatives suggested that multiple pages would be confusing.

However, it is also the participants from this course who say that the density of information can be overwhelming:

‘Sometimes it just feels like you're overloaded with information. You go to the main page to access the course and there's just like so many blocks and it's like, wow, this is kind of nuts.’ Participant 2

I think it's a bit confusing because there's so much information on Moodle and that makes it a little hard to navigate sometimes. But I don't know how that would be improved because I think all the information on there is necessary.’ Participant 3

‘What's unsuccessful is there is a lot of information and so it's navigating to find what you're looking for.’ Participant 1

Participants from the second course, where information is divided up into Course, Stage and Unit pages didn't mention density of information as an issue, which could indicate that there is a critical mass of information on one page and, once reached, dividing it up onto different pages would be beneficial. However, there is also the question of whether you can maintain the simplicity of having one page but mitigate the potential issues through clarity of navigation/ presentation e.g. colour-coding sections (see Theme 3), and through consistency in staff guidance (see Theme 4).

On the BA course, with several pages, there were some positive experiences:

'I would say compared to last year's Moodle, this one is a lot easier and a lot better to use.' Participant 4

‘I've found it pretty easy to learn how to access different stuff I need.’ Participant 5

However, there were examples of poorly maintained links or confusion about the menu structure:

I don't think it really makes sense that (the Stages and Units) are all in the same menu. I think it should be more of a drop- down menu... it confused me a bit at the start...I just didn't register it. ' Participant 5

‘Sometimes there's one too many ways of clicking to various things... I have on occasions got lost on where to click'. Participant 4

One participant also pointed out how signposting needs to be very specific, where possible, to reduce the need for searching, particularly if you're visually impaired:

'Click on the arrow on the right-hand side' - should say 'top right' if possible.’ Participant 6

In fact, a problem with this arrow is that it doesn't consistently appear 'top right', but on a phone or smaller screen it can appear anywhere on the right, which provides a poor user experience all round. Good UX design should have key navigational tools in predictable locations. WebAIM advise you to 'Create a navigational scheme that is consistent across pages within a site or within related sections of a site' when designing web content for people with cognitive disabilities, but this is something that would benefit all users.

The format of the page itself also has an impact on how easy it is to find information. The Foundation page uses a Collapsed topics structure and the BA course uses Collapsed topics on Unit pages and the Grid on Stage and Course pages. One visually impaired participant, reported that both work well with a screen reader, but the grid was helpful as it very quickly enabled them to access the section they wanted, whereas the collapsed topics format presented as a 'long block of text'.

'Knowing that the third box in a 3x3 layout is your assessment page means that no reading is necessary.' Participant 6

Other participants, however, said that the Collapsed topics format was helpful as it allowed the user to 'ignore any areas not needed'. More work will need to be done on these structures to get a clear idea about the pros and cons of each.

Naming conventions:

A factor which came up on both courses, but more so for the single page course, was the clarity needed in naming conventions. Students and staff often ask for a Search bar, and again this came up in this project. However, even if we had this (it's currently unavailable on Moodle), the effectiveness would depend on good naming and on students knowing the naming conventions. This isn't always the case, as one participant described the naming of documents in the correct section on Moodle:

'They sometimes either repeat themselves with the other previous documents or it's kind of in the group but the title doesn't relate to anything in the group...That is the document but you just don't realise that.' Participant 4

'It's confusing because there's two different (name of specialism) classes and we do very similar projects but with slight differences. It's hard to find the right presentation.' Participant 3

There was also an issue names not being consistent between a schedule and a tab display, which created unnecessary confusion.

Disappointingly, although 3 out of 5 participants on the questionnaire, Agreed that 'Sections and documents are clearly labelled', no-one agreed with the statement 'I can find what I need fairly quickly' (one was Neutral).

I am interested to see how this works in Higher Education institutions where a standard design template is used because my take-away from this overall is that inclusive design

requires some course-specific attention, for example, the density of information required on the page and the degree to which different elements of the course overlap. It also involves the engagement of staff and students on an ongoing basis. I wonder how we can implement that at scale as we work on our cross-college template.

Key takeaways:

- Consider the density of information and how to mitigate through additional support.
- Clear and consistent naming across the course is essential.
- Group information systematically – avoid repetition or extraneous information.
- Ensure navigational links are simple and functional.
- More testing is needed with staff and students on the use of grid/collapsed topics.
- Listen to what students need and correct faults when they happen.

Theme 3: Presentation of information: clean, clear and simple is best.

The central organising concept of this theme is that some features of presentation improve the user experience (e.g. headings and use of colour), and others detract from it (e.g. large amount of text). Clean, clear and simple is best. As one participant put it:

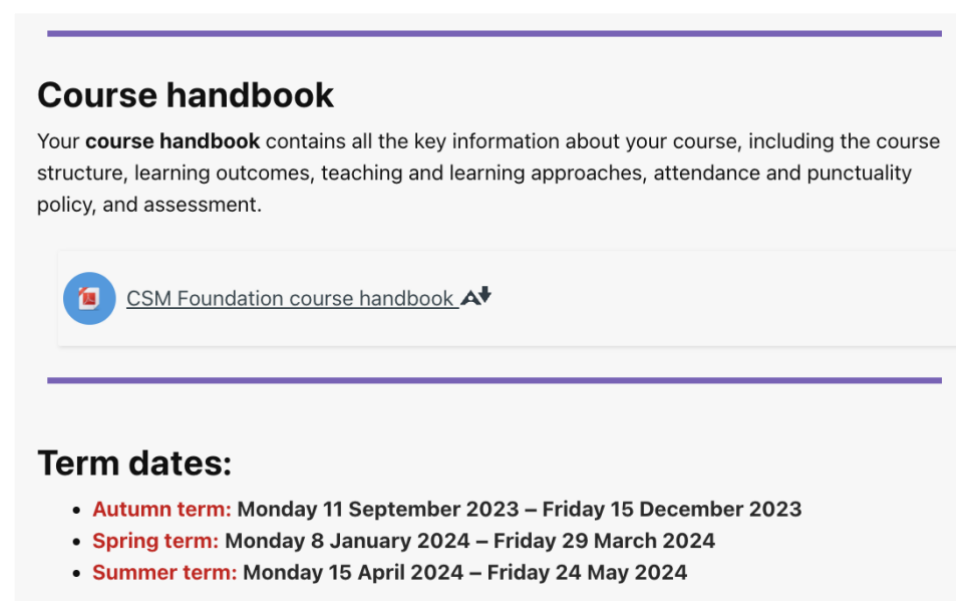
‘I like the design because it...doesn’t look fancy or anything. It’s just Moodle at the end of the day and I don’t think it needs to be fancy. I think to have it bare bones, but like you’ve got what you need, I think that’s the best way.’ Participant 5

The website, Neurodiversity Design Principles states, ‘Providing an uncluttered, organised arrangement of elements reduces cognitive load and choice paralysis’ (Choice Paralysis being the UX design principle that means people are less likely to act if faced with too much choice/information.)

Use of headings, spaces and bullet points:

The British Dyslexia Association style guide includes the advice to ‘Use white space to remove clutter and group related content’ as well as ‘Break up the text with regular section headings’. (Dyslexia Style Guide). This is also included in WebAIM’s guidance; ‘Organize content into well-defined groups or chunks, using headings, bulleted lists, and other visual-semantic organizing schemes.’

Whilst the college based Digital learning teams like us have little agency over the overall design of Moodle, our current template includes the use of ‘spacers’ to separate out blocks of text or files and proper headings, which are visually identifiable as headings and readable and searchable via a screen reader. We use bullet-pointed lists and bold for emphasis plus one other colour. The screenshot below gives an example of this:



The screenshot shows a Moodle page layout with a light grey background. A thick purple horizontal line separates the top of the page from the content. Below this line is the heading 'Course handbook' in bold black text. Underneath is a paragraph of text. Below the paragraph is a link icon (a blue circle with a white document icon) followed by the text 'CSM Foundation course handbook' and a small blue icon with a white arrow. Another thick purple horizontal line is below this link. Below the second purple line is the heading 'Term dates:' in bold black text. Underneath this heading is a bulleted list with three items, each starting with a red dot and the text 'Autumn term:', 'Spring term:', and 'Summer term:' respectively, followed by date ranges. The list is as follows:

- **Autumn term:** Monday 11 September 2023 – Friday 15 December 2023
- **Spring term:** Monday 8 January 2024 – Friday 29 March 2024
- **Summer term:** Monday 15 April 2024 – Friday 24 May 2024

Screenshot from current Moodle page showing ‘Spacers’ – purple lines between sections, proper headings and the use of bold/colour for emphasis.

According to the data, these features seemed to work well for participants, improving the ability to scan the page to locate information and organising it into clearer sections. This is supported by the questionnaire where three out of five participants said that breaking up sections with headings was either Useful or Very Useful and no-one said it was 'Distracting'.

'The spacers are good, separates the information, it would be too busy otherwise.'
Participant 3

'I think the headings are good.' Participant 2

'I personally like it where the bold and the colour is introduced because I compute that more than a big chunk of text'. Participant 1

Despite this, however, the overall view of the Foundation course page was more negative. All three respondents from this course said they Disagreed or Strongly disagreed with the statement, 'The way Moodle looks is clear and simple'. I believe this relates back to the density of information on the page.

Use of text:

One of the key elements for the research question was to ask participants about their view of the contextual information which is added below headings to offer guidance about the content below. When prompted to think about it, there were some quite positive responses, albeit with the proviso that it should always be concise:

'definitely keep it there - keep it short and simple.' Participant 4

'You've got to have something which explains because otherwise you're assuming that people know which is not necessarily the case.... And if it's your second language, not so.' Participant 1

'text is fine when certain words are in bold to get an idea what it's about. But other things are pretty self-explanatory and don't need text. e.g. timetable.' Participant 3

One participant noted the specific wording is also important:

'I use a screen reader too sometimes and it's like you hear the same thing over and over again. I read the sentence like Course Handbook, The course handbook is... and then it says Course handbook dot PDF...'. Participant 2

All participants identified large blocks of text as a problem, and this could be anything in excess of 4-5 lines of text. This applies to contextual information and Stage and Unit overviews, used on the BA course.

Use of images and colour:

An important area identified by 5 out of 6 participants was the use of colour on the page. Some comments were positive about the current use:

‘That’s how students refer to it, 'Where's the yellow box?’ Participant 1

‘I think the images and colour are good on Moodle.’ Participant 3

And specifically in relation to colour contrast:

‘I don't think there's anywhere on Moodle where I haven't been able to read what it's saying.’ Participant who has a visual impairment

However, colour-coding to distinguish between different sections on the Moodle page was also identified as a key area for improvement, to help reduce cognitive load and improve navigation.

‘A bit of a like visual distinction would probably be super helpful. It could even be as simple as like colour-coding it’ Participant 2

‘Colour-coding is helpful for others as well, not just dyslexic people.’ Participant 1

Unfortunately, the collapsed topics course format has no native function which allows you to change the colour on each section. However, this is an area we could look at to see if we can introduce this feature in a future update, or as part of a cross-college template.

The use of images to support navigation, also came up as a potential improvement.

‘I would say for me, actually, because of my dyslexia, (personalisation and customisation) helps a lot because it's the density of the reading sometimes that I find difficult, but if you add more pictures than words, it helps.’ Participant 4

Purely visual elements will disadvantage some visually impaired users and WebAIM advocates a ‘multi-modal’ approach, to increase the chance that content will be understood. However, this needs to be balanced with the need to keep the page clean and uncluttered, and where images are used, to ensure they are simple, recognisable and with strong contrast, as these are most likely to be visible to someone who is visually impaired. This design feature might be best suited to our cross-college template in order to ensure consistency.

Key takeaways:

- Headings, spacers, bullet points and bold/colour for emphasis are useful.
- Text should be kept to an absolute minimum and used only where necessary.
- Use of colour is important, and colour-coding would be an improvement.
- Maintain sufficient colour contrast.
- Clear graphical representations for distinct functions as part of a multi-modal design might be beneficial.

Theme 4: Staff guidance, or lack of, makes a significant difference.

The central organising concept of this theme is that Moodle doesn't function effectively in isolation. The wider course team need to have a good understanding of where information sits on Moodle and how it is organised. They need to be able to direct and ensure students are aware of all relevant features. In turn these members of staff need effective training and support to put this in place.

Staff instruction:

Instruction from staff about where to find information on Moodle seems to be patchy, and dependent on the tutor. This was the drawing done by one participant who was talking about the experience of being sent to find things on Moodle without clear instruction.



He describes being happy at the base of the staircase shown in the picture,

'...and then they say, find everything on Moodle, just like a grey area...Then you're happy again because all that's done... but you still have to submit, so it's all the grey area again.' Participant 4

Another participant felt they could easily ask for help:

'And if any time I just get lost, I can just ask a mate or one of my tutors to help me out.' Participant 5

Participant 4 also mentioned that he had specifically asked for previous 'Weekly briefing' slides to be available on Moodle and the course team had happily put this in place.

Predictably, there were more issues identified on the more complex page, from both staff and students, supporting the idea that this guidance is needed to mitigate the density of information. The new Moodle layout also seems to have created more problems.

Of this course page, one participant said:

'I think if the tutors just showed the class as a whole how to use it, how to find your stuff basically on there I think that would have been ideal. But instead, they basically said go to this website and figure it out.' Participant 3

The participant below was directed to travel to Kings cross and visit Student Services and the Library when looking for Workflow instructions which are on the Moodle pages.

'People didn't know where to find them and they didn't know how to use them and the tutors didn't know where to tell people to find them. I had to go on a wild goose chase.' Participant 2

In addition, a member of staff highlighted the difficulty staff have in locating materials on the page, the need for more support, time and training:

'Tutors are often asked to create content last minute and then make sure it is accessible with zero time or knowledge to fix this.' Participant 1

A final comment from Participant 3 suggests we all need to take a step back and think more broadly when putting this guidance/training in place:

'The tutors could definitely be a bit more helpful. They don't really explain things well enough for people who are neurodivergent or... accommodate maybe other people's way of thinking.'

Interestingly, this is a course team who receive and actively engage with training from the Digital Learning team, and who use Moodle frequently in class, but clearly gaps still persist. Perhaps we are not reaching the whole course team, or staff lack confidence in directing students, or even once shown, students find the organisation (see Theme 2) too challenging.

One member of staff cited an example from another college of a Moodle handbook provided at the start of the course with simple, clear instructions for the way to do things, plus templates to make that more straightforward. Perhaps we need to amend the Style guide we have produced and make a more tailored, shorter, handbook relevant to different members of the course team. Another suggestion was to put up posters with names and contact details of who to contact for help, to supplement Moodle.

Moodle site layout:

Both the left and right sidebars pose a problem as students and staff don't always realise they're there. As the Latest Announcements block is in the right-hand sidebar this means that unless staff make this clear, students are missing out on a key part of accessible design, to access their key course messages separately from any other emails, and on Foundation to

access the yellow box where absence reporting sits. Even when it has been highlighted several times, the arrow is not always obvious:

'The bit they don't know about is that little drop down thing (the arrow), that I keep saying, and then that really important yellow box.' Participant 1

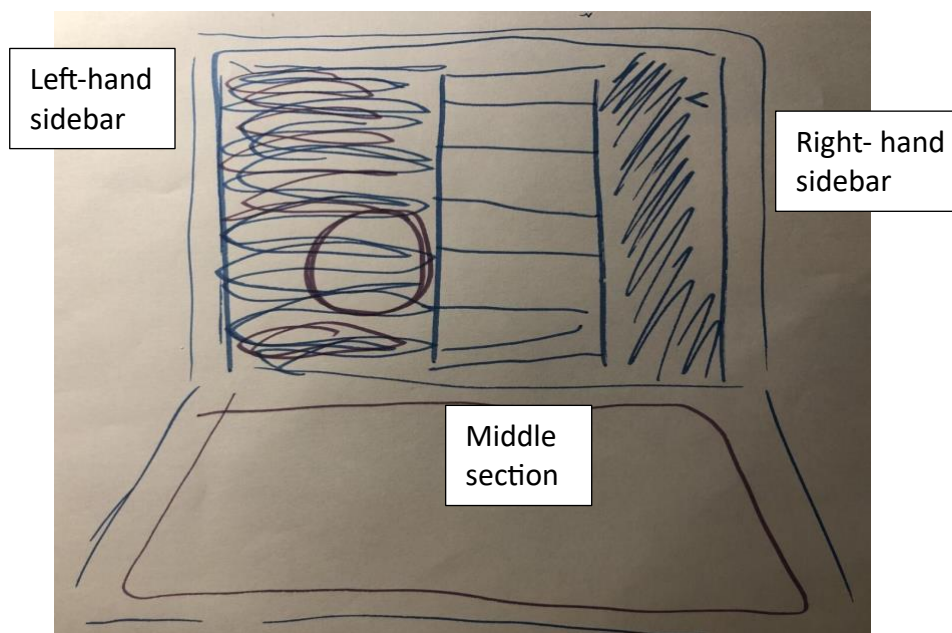
But for others, it helps to be able to close the right-hand side bar:

'My mind kind of works in a very clean space... concentrating on one thing helps.'
(Participant 4 referring to the ability to hide the right-hand side bar)

Another participant suggested moving the announcements:

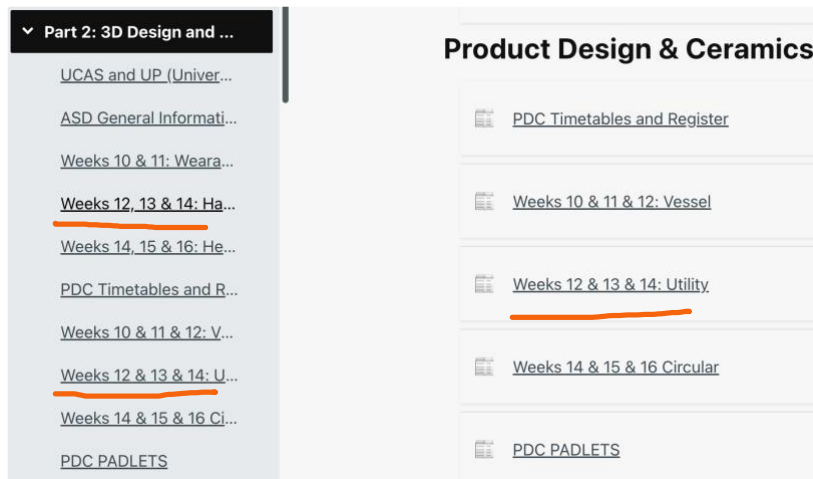
'I think Moodle messages should be more prominent on the page.' Participant 5

The drawing below shows how Participant 3 experiences the Moodle interface:



She uses the left-hand side bar but is showing it as very busy. She wasn't aware of the right-hand side bar so has scribbled it out. She hadn't noticed the middle section which she described as 'clear' in appearance.

The left-hand sidebar is less functional in general. The screenshot below shows how the width of this left-hand side panel makes the names of the content much less clear than when viewed in the main screen. Again, this highlights the need for both staff and students to receive clear guidance about how to best to navigate Moodle, and that naming conventions are fully tested.



ReciteMe

On both courses, participants didn't know about or didn't know how to use key tools, like ReciteMe. Some hadn't seen it at all and thought it would be useful, and others only used one or two features, put off by the number of buttons.

For example, students hadn't been shown the dyslexia friendly font or the ability to change the background colour of the screen. It's one of the key elements of accessible design that users can change the font, size, background colours, and we have that ability, but students and staff don't really know about it and that is something we in the Digital Learning team need to address.

One participant, who uses the screen reader in ReciteMe said that his international friends weren't aware of the translate tool:

'So it's maybe worth advertising that more or suggesting to course leaders to like say it in morning briefings or whatever when they have time basically.' Participant 4

Key takeaways:

- Guidance from course staff is essential to access both key course content and features of Moodle e.g. ReciteMe, sidebars.
- Course teams need access to regular training (synchronous/asynchronous) to ensure knowledge is up to date and to raise confidence in navigating Moodle.
- Accessibility tools need to be more visible to staff and students e.g. through short Moodle and ReciteMe video inductions, CSM newsletter, etc.

Conclusion:

To what extent does our Moodle design template support inclusive practice in relation to neurodiverse and disabled students?

Perhaps inevitably, the answer to this research question seems to be 'partially'. Based on this data, there are practical elements that work well; headings, spacers, colour contrast, bullet points, and the use of distinct images for individual pages. When we work with course teams on their Moodle pages, we encourage them to think of Moodle as a member of the team, an active part of learning and teaching, and the data suggests that this has some traction - material is reliably available and Moodle is seen as important part of learning and teaching. Participants talked about the improvement from previous years and the overall usefulness of Moodle, suggesting (although not proving, of course) that this a step forward.

'Firstly, the redesign is better overall and more successful.' Participant 1

'I would say compared to last year's Moodle, this one is a lot easier and a lot better to use.' Participant 4

However, there are clearly significant areas where we need to improve. I would say the priorities here are clarity and consistency in the naming of documents; more training and support for staff, in a variety of easily digestible formats, to ensure they are in a better position to support students; and a push for lecture recordings to be made available. In addition, I think in the Digital Learning team we can look into potential for colour-coding, use of graphical images and further testing of the grid/collapsed topics format

One area we have not really touched on here is about accessible documents (the uploaded material on Moodle), and how to encourage best practice across the college. This is another significant area where we need to improve.

Finally, I'm aware that this project is very small and has focussed on one particular group of students. It's interesting that relatively few of the comments made by participants specifically related to their neurodiversity or visual impairment. These were largely concerned with use of images or colour, a preference for a different font/background colour, use of a screen reader or the requirement to have less text, all of which are likely to be helpful to a wide variety of students. Having said that, I am also interested to run similar projects with other groups, in particular, students with English as an additional language, to see if their experience is substantially different. I will also incorporate some of the prompts used in this project into our Moodle evaluation forms in order to try and understand more about students and staff from a broader range of backgrounds who might not wish to participate in 1:1 interviews or focus groups. Speaking to students and staff has been a really pleasurable and valuable experience and I'm very grateful to all the participants. As one said:

'So it's good that they've got people thinking about this and, you know, meeting with students is very, very big step. And it's a personal step, you know? So it's good.'

Bibliography (cited sources):

Dyslexia style guide, British Dyslexia Association (2023) Available at: <https://www.bdadyslexia.org.uk/advice/employers/creating-a-dyslexia-friendly-workplace/dyslexia-friendly-style-guide> (Accessed 1 Jan 2024)

Inclusive Teaching and Learning in Higher Education as a route to Excellence (2017), Disabled Students Sector Leadership Group, Department for Education, Available at: [https://assets.publishing.service.gov.uk/media/5a802f43e5274a2e8ab4ead7/Inclusive Teaching and Learning in Higher Education as a route to-excellence.pdf](https://assets.publishing.service.gov.uk/media/5a802f43e5274a2e8ab4ead7/Inclusive_Teaching_and_Learning_in_Higher_Education_as_a_route_to-excellence.pdf) (Accessed 5 January 2024)

Soward, W. *Neurodiversity Design System* Available at: <https://neurodiversity.design/> (Accessed 29 December 2023)

WebAIM web accessibility in mind (2013) Available at: https://webaim.org/articles/cognitive/cognitive_too_little/ (Accessed 30 December 2023)

References:

Braun, V. and Clarke, V. *Thematic Analysis – an introduction* (2018) Available at: <https://www.youtube.com/watch?v=5zFcC10vOVY> (Accessed 19 December 2023)

Clarke, V. *What is Thematic Analysis?* (2017) Available at: <https://www.youtube.com/watch?v=4voVhTiVydC> (Accessed 18 December 2023)

Braun, Virginia, and Victoria Clarke. 'Using Thematic Analysis in Psychology'. *Qualitative Research in Psychology* 3, no. 2 (January 2006): 77–101. <https://doi.org/10.1191/1478088706qp063oa>.

Fryer, T. 'A Critical Realist Approach to Thematic Analysis: Producing Causal Explanations'. *Journal of Critical Realism* 21, no. 4 (8 August 2022): 365–84. <https://doi.org/10.1080/14767430.2022.2076776>.

Lochmiller, C. 'Conducting Thematic Analysis with Qualitative Data'. *The Qualitative Report*, 20 June 2021. <https://doi.org/10.46743/2160-3715/2021.5008>.

Maguire, M., and Brid, D. 'Doing a Thematic Analysis: A Practical, Step-by-Step Guide for Learning and Teaching Scholars.' 8, no. 3 (2017).