Inclusive curriculum briefing: using Moodle

Introduction

The use of online environments such as Moodle can form a significant part of an inclusive curriculum strategy.

Inclusivity in Moodle simply means considering the wide range of abilities and needs that end users may have, and designing a learning space that is flexible enough to accommodate these needs and preferences.

Designing with flexibility of delivery in mind ensures that those with disabilities (visual, auditory, physical etc.) are able to navigate through, and engage with, the learning materials and activities presented to them, however a well-designed learning space is equally beneficial to those without disabilities.

Employing a range of approaches and media in order to accommodate the differing needs and preferences of individual users is an effective way of ensuring that the learning remains inclusive. Indeed, unless you are specifically delivering an online unit of study, your use of Moodle will most likely complement what is already being provided in a face-to-face environment.

Moodle

Moodle is constantly evolving and developing. However a requirement of all current and future developments is that the environment and its tools remain as accessible as possible, and that they conform to the relevant legislation.

Moodle offers curriculum leaders a wide range of functionality from which to construct their learning spaces and, used appropriately, these can support all students regardless of individual needs or preferences.

A Moodle course can provide access to materials for those who are not able to attend a teaching session, provide materials for extra practice or pre-reading in advance of a lecture - something that can be useful for all students (particularly those with visual or auditory impairments or those for whom English may be a second language).

Similarly, Moodle can facilitate engagement with peers in a way that complements traditional face-to-face interactions (through online discussions for example), providing alternative mechanisms through which information exchange and collaboration can take place – reducing or removing any barriers to engagement that may exist in the physical space.

Design Considerations

Whilst Moodle has been deliberately designed to function with a range of assistive technologies, course design also plays an important part in the successful delivery of an inclusive curriculum and there are a number of things that course owners can do to ensure that materials can be navigated and accessed by all users with ease.

Since an inclusive curriculum puts the needs of the individual student to the fore, the design of any Moodle course should not only support student's individual needs, but should also aim to accommodate their differing learning styles and preferences.

Removing or addressing barriers to engagement

If Moodle use is to form a significant part of the students learning experience, it is vital that their ability to successfully access and interact with the site is adequately considered early on (and advice or alternatives provided as appropriate).

Although Moodle is available from both on and off campus, there are still minimum requirements for access that need to be adhered to (e.g. an up-to-date browser and reliable access to the internet will be required). Students may be disadvantaged if they are accessing from locations where they do not have a reliable internet connection, or if their access to a computer is lost for any reason.

Course designers should also consider the needs of students with specific disabilities (some of whom may use assistive technologies to navigate the online environment). Again, every effort should be made to ensure that they are not disadvantaged in any way.

- Ensure that students are made aware of the expectations that you have for their engagement in the online space, and that any support mechanisms are clearly communicated.
- Barriers to engagement may emerge over time (temporary problems such as a broken arm or an unexpected loss of internet access can affect a student's ability to interact online). Students should be encouraged to raise any emerging concerns with the course owners in order that suitable support can be provided.
- Where challenges to online engagement are highlighted (perhaps due to a specific disability or technical issue), alternative solutions should be made available.

Organisation and Presentation of Material

Given that courses tend to expand over time, consideration should be given early on in the design process to the structure of the space. Large amounts of text or poorly named links to resources can make it harder for users to orientate themselves in the learning environment, and this can cause difficulties.

- Consider first how information is to be organised. Moodle can organise information in a number of ways – such as by topic or by date (depending upon the preference of the course owner or the learning design).
- Layout of items can convey hierarchy and relationships between elements. A generous use of space between items makes reading easier and it can help with visual organisation of material
- Use of headings and appropriate (copyright cleared) imagery can add helpful context to the course and again can help to orientate users quickly. Labels can and should be added to courses as necessary in order to group related information together and to provide valuable context. This is useful to all users including those using assistive technologies which are able to process and highlight the existence of headings.
- Moodle has built a built in navigational aid (in the form of the 'Navigation block'). Named topics, resources and activities are reflected in this area, again enabling students to move around the site with added ease. It's important therefore that topics, resources and activities are named in a meaningful way.

- If there is large number of topics to be presented to the student, consider modifying the course layout – selecting instead the 'one topic per page' layout. As the name suggests, only one topic box will be visible at any time (minimising the need for excessive vertical scrolling in long courses). If adopted, this allows students to choose how they navigate around course topics – either in a linear fashion, or by 'jumping' to a topic of their choice.
- Use of contrast can enhance the readability of text, however do not rely too heavily on colour differentiation. Not everyone processes colour in the same way, and those using assistive technologies may well choose to change the colours of online text based on their own preferences and needs.
- Organise related files within appropriately named folder structures. Again, this minimises the necessity for excessive scrolling and helps users to find relevant materials quickly.
- Consider the range of devices that users may be using to access the site, and design your course appropriately. Use of Moodle 'pages' (web based pages that are part of the Moodle site) will be automatically resized for delivery on a range of screen sizes and device types (such as mobile phones and tablet devices). Related Moodle pages should be placed in a Moodle 'book' resource. Each Moodle book creates its own table of contents which can aid navigation – allowing users to go to a specific chapter (page) or to move through the resources in a linear fashion.

Developing Inclusive Resources

Digital learning materials are usually more accessible to users than printed handouts and photocopies. Students with visual difficulties or dyslexia can choose to modify the appearance and layout of the text – personalising it to make it easier for them to read. Assistive technologies (such as text-to-speech software) can also be used to review digital materials (further aiding inclusivity). Digital resources often feature heavily in Moodle courses so should also be created in such a way as to ensure that they are as accessible as possible.

- Making handouts available on Moodle in advance of a lecture can not only change the focus of the face-to-face interaction (e.g. by moving from knowledge transmission to construction). Additionally, some learners will value the opportunity to reflect before engaging in discussion, whilst for others, note taking in a lecture may be otherwise distracting or challenging.
- Multimedia files (audio, video) can be usefully added to a Moodle course to support those with a preference for auditory or visual learning. Recordings of lectures or other relevant videos can be revisited at any time, reinforcing concepts or perhaps acting as a revision aid. Students who have English as a second language are amongst the groups who will benefit from this form of resource. Do consider including an accompanying transcript (or at least a summary of the video's content) in order to ensure that those who cannot see the video (for whatever reason) will not be disadvantaged.
- Relevant and meaningful images (such as diagrams) can be a helpful way to illustrate a concept, enabling learners to see trends and patterns more clearly; however for those users navigating the course with a screen reader, 'alt' text should be added to any image (as this is how the image will be described by a screen reader). Likewise, any tables inserted in a course should ideally include a header row or column (as appropriate). This will also help those users making use of assistive technologies.
- All Moodle activities and resources can contain descriptive text. Including a description can provide additional contextual information and guidance to the student and will be beneficial for all learners, regardless of individual need.

- Moodle courses frequently feature resources that have been created outside of the environment (such as Word or PDF files). Ideally, these will also be created with a view to ensuring the accessibility of the resource – guidance can be found in the 'Resources' section of this document.

Encouraging Interaction

Interaction in Moodle does not occur without suitable 'scaffolding' being in place, and the first step to ensuring that students can engage purposefully online is to ensure that there are no barriers to access (technical, physical or emotional).

To this end, students may need opportunities to 'practice' before engaging in in-depth discussion with their peers for instance. Such opportunities will highlight any barriers to engagement and will also improve students understanding of how an activity may be expected to run.

Care should be taken to ensure that individuals or groups of students do not feel isolated or excluded by the activities that are developed and this can be avoided by considering the diverse range of backgrounds that students will bring with them (e.g. geo-cultural or social).

It's helpful to be explicit about expectations within a Moodle course – what are the expectations on the student and what can they expect from the course leaders. This is particularly important in the case of formative online activities, as those that are introduced to the students as an important part of their studies are less likely to be considered 'optional'.

Students will only visit a Moodle course if they perceive a value in doing so. Regular online interaction from the Teachers associated with the course (perhaps acting as a facilitator in discussion forums, or uploading short audio commentaries to the site) will provide students with an incentive to visit the page.

Inclusive Assessment

Care needs to be taken to ensure that any assessment activities presented to the student evaluate the learning outcomes associated with a course rather than the speed, auditory, visual or physical capabilities of the learner.

e-Assessment (perhaps using a Moodle quiz or assignment activity) can be particularly useful in this respect since students can use their own assistive technologies to access questions and/or provide their answers.

Moodle can support a range of assessment types (peer and self-assessment, quizzes and file submissions). Used formatively these tools can become valuable mechanisms through which students can check their own understanding of a subject, and (in the case of the Moodle quiz), gain instant feedback which will help to reinforce the learning.

Resources

Inclusive and Accessible Learning and Teaching

- https://teachinghub.bath.ac.uk/guide-category/inclusive-learning-teaching/
- https://teachinghub.bath.ac.uk/guide/what-is-accessibility/

- https://www.advance-he.ac.uk/guidance/equality-diversity-and-inclusion/student-recruitment-retention-and-attainment/inclusive-learning-and-teaching

Accessibility in Moodle

- https://docs.moodle.org/401/en/Accessibility
- https://teachinghub.bath.ac.uk/guide/accessibility-toolkit/
- https://teachinghub.bath.ac.uk/teaching-and-assessment/case/

Creating accessible documents:

- https://webaim.org/techniques/word/
- https://webaim.org/techniques/powerpoint/
- https://webaim.org/techniques/acrobat/converting#word
- https://www.bath.ac.uk/publications/how-to-make-your-work-accessible/attachments/accessibility-guide.pdf
- https://support.microsoft.com/en-us/office/accessibility-video-training-71572a1d-5656-4e01-8fce-53e35c3caaf4