



QH Supplement 12C: Principles for High-Quality Online Learning

1. Introduction

- 1.1 This document sets out NTU's principles for online learning. The fifteen principles align with the external [Quality Matters Higher Education Rubric for Course Design](#). They reflect:
- a. Academic understanding of online learning highlighted through workshops, consultation with colleagues and students from across the University, and Learning Room quality audits.
 - b. NTU's strategic vision for continued growth in flexible learning opportunities, including the first approach of the Creating Opportunity ambition of the University, reimagined strategy to weave face-to-face and digital provision seamlessly into all our programmes so students can plot their own routes through our courses.
 - c. NTU's Equality, Diversity and Inclusion Plan. This is achieved through deliberate design and delivery of content and support that meets the varied learning styles, abilities, circumstances, and backgrounds of our students, ensuring a respectful and understanding atmosphere with equal opportunity for success.
- 1.2 The principles are designed to ensure an engaging, inclusive educational experience, with a strong focus on student wellbeing. Our approach to online learning combines structured, user-friendly design, ensuring ease of navigation across various devices. We clearly highlight the support that's available and encourage meaningful interaction and community building, all integral to promoting effective learning.

2. Principles for High-Quality Online Learning

Principle 1: Online Learning is the most appropriate method of delivery for students who require flexible access to their learning. It offers choice of pace, place and mode of study, with instant feedback, at scale.

Adherence to this principal aids compliance with the following conditions of the OfS Blended Learning Review:

B1.3.d: Each higher education course is effectively delivered.

- 2.1 Advance HE defines flexible learning as "...empowering students by offering them choices in how, what, when, and where they learn: the pace, place, and mode of delivery."¹ Flexible learning is essential to allow students to combine work, study, and leisure around their specific needs. Advance HE states that introducing flexibility into course delivery positively impacts recruitment, retention and progression, access and participation, and creates opportunities for learners of all ages, backgrounds, ethnicities, and nationalities.
- 2.2 Teaching is delivered in person wherever this is the most appropriate method. A value judgement is required by course and module teams on what delivery method is most suitable for each content item, activity, and assessment.
- 2.3 Modules selected for online delivery should be done so on sound pedagogical reasoning. Online learning is the most appropriate mode of delivery when one or more of the following is required²:
 - a. Anywhere, anytime access to learning on whatever internet-enabled device you have with you
 - b. Interactive lessons that offer instant feedback at scale
 - c. Learning chunked into bite-size pieces
 - d. Lessons that can be taken in or out of sequence.

Principle 2: The student journey should be planned as learning engagement time rather than contact hours.

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- 2.4 Courses have traditionally defined direct contact teaching and learning methods as 'contact hours' and all other forms of learning as 'non-contact hours'. In flexible, online and highly blended learning, the division is not as clear. This way of learning

¹ Advance HE Framework for Flexible Learning in Higher Education, 2016

² Blended, Using disruptive innovation to improve schools, Michael B. Hor & Heather Staker, 2015

- provides a broader set of tools, removing barriers and shifting the definition to focus on the student journey.
- 2.5 In this context, course teams should think in terms of learning engagement time to describe the range of learning and teaching approaches that students experience on a flexible, online or highly blended learning module.
 - 2.6 Learning engagement time is made up of two broad learning methods:
 - a. Directed learning; and
 - b. Guided independent learning.
 - 2.7 Full details with examples can be found in the [Redefining Contact Time Guide available on the Flexible Learning Support page](#). This change does not need to be updated in the definitive module information in CourseLoop but must be shared with students in the Module Information section of the NOW Learning Room.

Principle 3: Expectations about the timing and access of online content should be clearly stated.

Adherence to this principal aids compliance with the following conditions of the OfS Blended Learning Review.

B1.3.c: Each higher education course is coherent.

- 2.8 Online and highly blended learning will be a new experience for many students; they need to be instructed on how and when to access their learning content. Students balancing their studies with other commitments, such as work and childcare, require clear information about when new content will be available, how long they will need to commit to a particular activity, and any related deadlines to help them plan their time more efficiently.
- 2.9 Clear expectations should be regularly stated within a Learning Room, explaining when content will be available, timeframes for completion, and contribution expectancies. It is essential to establish a routine of content release to help students form good habits for checking their Learning Room for updates. Habit-forming is a vital tool in guiding students towards behaviours that foster high levels of engagement with their learning³.

Principle 4: Core Library resource list items should be digital and hyperlinked when used in context.

Adherence to this principal aids compliance with the following conditions of the OfS Blended Learning Review:

B1.3.d: Each higher education course is effectively delivered.

³ <https://resilienteducator.com/instructional-design/education-as-habit-formation/>

B2.i: A high quality academic experience for students.

- 2.10 Core resources must be provided in digital format whenever possible. For some lists, this will require extensive reworking of list content. It is strongly advised that Resource Lists are reviewed with your [School Library contact](#) annually. Library contacts can assist course teams in finding electronic alternatives, either from LLR's extensive digital collections or, if necessary, by purchasing appropriately sourced and licenced content.
- 2.11 When referring to digital resources in Learning Room content, it is good practice to provide a hyperlink to that resource. Linking content encourages students to engage with the core materials in the context of their learning.

Principle 5: All “on-demand” (asynchronous) activity and resources should be accompanied by explicit instruction.

Adherence to this principal aids compliance with the following conditions of the OfS Blended Learning Review:

B1.3.c: Each higher education course is coherent.

B1.3.d: Each higher education course is effectively delivered.

B2.i: A high quality academic experience for students.

B2.ii: Students succeed in and beyond higher education.

- 2.12 Students should be supported with 'on-demand' online activities via “scaffolded” guidance and support. Scaffolding in online learning is a strategy where initial extensive support is provided to students. This support is gradually reduced as students become more proficient, encouraging independent learning, and understanding of the subject. It's especially important in online environments to maintain engagement and understanding in the absence of face-to-face interaction.
- 2.13 In providing this support, colleagues should aim to understand students' current abilities and the instructional strategies and practice opportunities that will help learners develop the necessary competence and confidence.
- 2.14 When working with less experienced online learners, using an established framework like Gilly Salmon's 5-Stage Model⁴ can make it easier to provide developmental support systematically.

Principle 6: Content should be written in the author’s voice, with a strong narrative to engage learners.

⁴ <https://www.gillysalmon.com/five-stage-model.html>

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B1.3.d: Each higher education course is effectively delivered.

2.15 Writing for online readers should reflect how people engage with online content; this differs from how people engage with print media. The key writing conventions are as follows:

- a. Use plain, informal English: 'write as you speak'.
 - Use natural language to set a personal and engaging tone, keeping to first and second person where possible, e.g. "Why should you revise early?" rather than "What are the benefits of early revision?"
 - Explain any jargon or specialist terms on first use.
 - Avoid culture-specific references. Learners' cultural backgrounds may differ; avoid language and examples which may exclude some students.
- b. Make text 'scannable'⁵:
 - Provide meaningful headings and subheadings.
 - Use short paragraphs containing no more than 3 sentences.
 - Use text organised in bulleted lists where possible.
 - Highlight keywords (bold or italics, but not underlined since this suggests a hyperlink).

2.16 There should also be a clear narrative to set learning activities in a broader context and lead learners through the online material. It can be helpful, for example, to:

- a. Introduce and contextualise content and activities.
- b. Make explicit links to learning outcomes, assessment tasks or other parts of the curriculum.
- a. Incorporate review sections to:
 - Summarise and draw out key themes;
 - Pose new questions or suggest further reading;
 - Promote reflection and application.

Principle 7: Community building should be integrated into the module design, and opportunities for active and collaborative online learning should be included.

⁵ <https://www.nngroup.com/articles/how-users-read-on-the-web/>

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- 2.17 Addressing the missing 'human element', particularly the lack of personal connection, is critical for online, highly blended and flexible learning.
- 2.18 The 2020 NSS findings highlighted the importance of developing a sense of community in course delivery. Research by WONKHE⁶ conducted in October 2020 revealed that loneliness and an absence of a sense of community are strongly related to an increase in the number of students considering withdrawing from their current courses.
- 2.19 Students appreciate their online learning when it includes personal support from teachers and peer interaction. Module Leaders should take an active and visible role in their online modules, posting regular news items, responding to discussion forums, etc. The Community of enquiry framework⁷ supports this, emphasising social interaction as crucial for education, alongside teaching and cognitive aspects. This should guide the development of a supportive learning community.
- 2.20 Therefore, it is important to design in opportunities for learners to form meaningful connections with each other, right from the start. Advice and guidance can be found in NTU's 'Creating a welcoming digital community' guide⁸.

Principle 8: Automated learning checks should be utilised for regular formative assessment and instant feedback.

Adherence to this principal aids compliance with the following conditions of the OfS Blended Learning Review:

B1.3.d: Each higher education course is effectively delivered.

B2.i: A high quality academic experience for students.

B2.ii: Students succeed in and beyond higher education.

- 2.21 Regularly integrating short, low stakes, active, knowledge checks (e.g. multiple choice questions, fill in the blanks, drag the words, sequencing etc.) reinforced by weekly summary formative assessment, enhances student engagement and recall while preparing students for summative evaluation. Research has revealed several benefits to this type of formative assessment:
 - a. Formative assessment after content consumption aids a deeper understanding of content.
 - b. Breaking up content consumption with low stakes knowledge checks helps students maintain concentration and enhances engagement.

⁶ <https://wonkhe.com/blogs/anti-social-learning-the-costs-of-covid-restrictions-on-students/>

⁷ <https://journal.alt.ac.uk/index.php/rlt/article/view/2240>

⁸ https://www.ntu.ac.uk/_data/assets/pdf_file/0033/1285377/creating-a-welcoming-digital-community.pdf

- c. Continuous weekly low stakes assessment enhances student outcomes and has been associated by students with increased engagement.
 - d. Automated knowledge checks allow academics to monitor student progress and identify problem areas without the need for extensive marking, as well as providing instant feedback for the student.
 - e. Content-embedded assessment can increase student concentration and engagement with video content.
- 2.22 Formative assessment using automated learning checks using H5P or the VLE's other assessment tools should be included to support all content delivered online.

Principle 9: Online content should be digitally inclusive and achieve an accessibility score of 90% or above through Blackboard Ally.

- 2.23 [The UK's Public Sector Bodies \(Websites and Mobile Applications\) Accessibility Regulations 2018](#) requires that resources and systems used within the public sector, including education, be accessible to all users by design. The legislation requires that any content added to NOW or any software used with students meets accessibility standards.
- 2.24 At NTU, 17.4% of students disclose that they have a registered disability, learning impairment or suffer from a mental health condition. NTU's Student Services team estimates that this figure is likely to be closer to 20% when accounting for students who choose not to disclose. In an average NTU module containing 55 students, up to 17 may require reasonable adjustments to resources.
- 2.25 Under accessibility legislation, reasonable adjustments must be made to teaching to account for students' additional learning needs. Specific advice can be found in the [NOW Accessibility Statement](#).
- 2.26 [Blackboard Ally](#) was introduced at NTU in July 2020 and provides academic staff with a tool that increases awareness of the compliance levels of their materials hosted on NOW and offers detailed insight and guidance on how to improve the accessibility of their content. Step-by-step instructions are available to fix most accessibility issues, whilst reports are available at the system and Learning Room level to identify common problems and resources that require attention.
- 2.27 An 'acceptable' Blackboard Ally score is 90%. This target should be achieved by the end of the module's third delivery week, where possible.

Principle 10: Audio and video content should be created in chunks of no longer than 10 minutes and hosted in Panopto.

Adherence to this principal aids compliance with the following conditions of the OfS Blended Learning Review:

B1.3.d: Each higher education course is effectively delivered.

- 2.28 To keep students engaged, break down video lectures into short videos, or clear segments. MIT research shows that videos under 6 minutes maintain student

attention best, with engagement dropping in videos over 10 minutes. For longer videos, engagement can be maintained with high-quality storytelling, presentation, visuals, and including a talking-head format. Unlike films, which are scripted and edited with frequent shot changes, educational videos benefit from being shorter and often single-take [A brief guide is available to support the creation of higher quality video.](#)

- 2.29 At a course and school level, sustainability can be achieved by creating videos that can be reused over time and across multiple modules. Reused content may include subject-specific technology tutorials and introductory topic information. Avoiding reference to module-specific or timebound information will increase usability and save time in future academic years.

Principle 11: A range of supported digital tools should be agreed at the course level to provide a consistent student experience across modules.

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B1.3.d: Each higher education course is effectively delivered.

B2.i: A high quality academic experience for students.

B2.ii: Students succeed in and beyond higher education.

- 2.30 Tools supported and approved by the Digital Technologies department should be used when creating activities for learning and assessment. All supported solutions have been through rigorous checks for compliance with current legislation, for long-term sustainability, and tested to ensure they do not undermine the integrity of course assessments.
- 2.31 Students' experience must be consistent across modules on their course, and they should not be asked to use various tools with similar functionality. Students should not be expected to sign up to use a tool as part of learning essential to their course of study.
- 2.32 If a software requirement cannot be met using the digital tools available, the Flex Team should be contacted in the first instance. NTU will not support the procurement of tools unless a business case can demonstrate that existing tools do not meet 80% or more of the required functionality. Once approved, all requested software is checked against legislative and sustainability requirements before purchase; alternative software must be found if any checks fail.

Principle 12: Online "live" (synchronous) sessions should include frequent activity changes and a break at least every 90 minutes.

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- 2.33 Short 'live' sessions are more inclusive, accommodating students in different time zones or with extra commitments, like part-time work or apprenticeships. They're also more manageable for students who might be unwell or have limited access to equipment, as catching up on one hour is easier than multiple hours.
- 2.34 For staff, managing shorter sessions is less burdensome than longer ones, as they present fewer complexities compared to a physical classroom. Additionally, if a session needs rescheduling, it's easier to replace or rearrange one hour than three.
- 2.35 Students should be reminded to look away from the screen regularly. The 20-20-20 rule suggests that every 20 minutes spent looking at a screen, a person should look at something 20 feet away for 20 seconds⁹.
- 2.36 Many studies suggest that the maximum attention span for a single activity is about 10 minutes. To maintain engagement, students should be offered diverse activities and interactive opportunities in each session. This approach encourages active participation and highlights the benefits of attending live rather than watching a recording later. Within the MS Teams platform, various tools like Breakout rooms, Whiteboard, and polls using Forms can assist in creating this variation. Additionally, external tools like Vevox are available for enhancing audience participation.

Principle 13: Group sizes and student teacher ratios for online "live" sessions should facilitate an engaging and interactive experience.

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- 2.37 Determining the best size for a live online class depends on various factors, including the course's objectives, the level of interaction required, and the pedagogical approach. There isn't a one-size-fits-all answer, but group sizes for 'live' sessions should be selected to facilitate active and collaborative learning. Smaller class sizes tend to facilitate more interaction, which can lead to better student performance and engagement.¹⁰
- 2.38 Online "live" sessions should be used for discussion and collaboration activities, rather than lecture-style exposition, giving all students equal opportunity to participate. Live, online lectures should be avoided and replaced with pre-recorded,

⁹ <https://www.teachthought.com/technology/the-20-20-20-rule-why-students-need-to-take-screen-breaks/>

¹⁰ [Class Size in Online Courses: What the Research Says](#)

on-demand, "chunked" video or audio content. See Principle 10 for further guidance.

- 2.39 Large online group sizes can be appealing as they offer the opportunity to reduce the need to deliver a session multiple times. However, with large group sizes and low student teacher ratios, the opportunity for participation is reduced. In courses with 15-30 students, the amount of instructor participation significantly affects student participation. However, in larger classes, this correlation diminishes.¹¹
- 2.40 Larger group sizes can remain effective for a one-off live online event, such as guest speakers or regular Q&A events like those held monthly by the Vice-Chancellor. Online 1:1 and small group tutorials should be carried out in Teams as scheduled calendar events or through Microsoft Bookings to make sure the live auto-captioning is available to students that need it.

Principle 14: Online content should reflect and value the diversity of the NTU community.

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B2.i: A high quality academic experience for students.

B2.ii: Students succeed in and beyond higher education.

- 2.41 High-quality online learning at NTU is aligned with the institution's equality, diversity and inclusion policies and strategic aims. EDI is integrated into all aspects of online content, from design to delivery, reflecting the varied backgrounds and experiences of the NTU community.
- 2.42 Educational materials are crafted to integrate EDI principles and strategies, including but not limited to; efforts to decolonise the curriculum, recognising intersectionality, co-creation with a diverse range of voices and use of inclusive language and imagery.¹²
- 2.43 In recognising the unique challenges presented by online and blending modalities, design and delivery address varying levels of technology access and diverse learning needs.
- 2.44 Continual development of the approach to EDI in online learning is a priority and involves proactive and context-sensitive actions that reflect and value the diversity of the NTU community.

Principle 15: Module Leaders should maintain an active and engaged role in the facilitation of online activities.

¹¹ [Class Size in Online Courses: What the Research Says](#)

¹² [Incorporating diversity into course content](#)

Adherence to this principal aids compliance with the following conditions of the OfS Blended Learning Review:

B2.i: A high quality academic experience for students.

- 2.45 The responsibilities of facilitating online learning activities after a module has launched are varied. They include active guidance, leading discussions, keeping regular communication, and providing adaptive support. Adopting these approaches can greatly enhance both the effectiveness and the level of engagement in the module.¹³
- 2.46 Module Leads should encourage and maintain collaboration, communication and discussion among students. This involves active participation in discussion boards, responding to student posts, encouraging active participation of others, and creating a safe and inclusive online environment for idea sharing.
- 2.47 Weekly communication via news items and/or intelligent agents is critical in keeping student engaged and organised. These communications can include reminders about due dates, summaries of key points covered in the module, highlighting upcoming topics or activities, and sharing links about subject relevant news stories.
- 2.48 Module Leads should use the available analytical tools to monitor student engagement with their online modules and take appropriate intervening action, where needed.

¹³ [Online Instructor Presence](#)

3. Appendix 1: Summary of Online Learning Principles

Principle No.	Headline
1	Online Learning is the most appropriate method of delivery when students require flexible access to their learning. It offers choice of pace, place and mode of study, with instant feedback, at scale.
2	The student journey should be planned as learning engagement time rather than contact hours.
3	Expectations about the timing and access of online content should be clearly stated.
4	Core Library resource list items should be digital and hyperlinked when used in context.
5	All "on-demand" (asynchronous) activity and resources should be accompanied by explicit instruction.
6	Content should be written in the author's voice, with a strong narrative to engage learners.
7	Community building should be integrated into the module design, and opportunities for active and collaborative online learning should be included.
8	Automated learning checks should be utilised for regular formative assessment and instant feedback.
9	Online content should be digitally inclusive and should achieve an accessibility score of 90% or above through Blackboard Ally.
10	Audio and video content should be created in chunks of no longer than 10 minutes and hosted in Panopto.
11	A range of supported digital tools should be agreed at the course level to provide a consistent student experience across modules.
12	Online "live" (synchronous) sessions should include frequent activity changes and a break at least every 90 minutes.
13	Group sizes and student teacher ratios for online "live" sessions should facilitate an engaging and interactive experience.
14	Online content must reflect and value the cultural diversity of our students.
15	Module Leads should maintain an active and engaged role in the facilitation of online activities.

Policy owner
CADQ

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Version:	Approval date:	Implementation date:	Nature of significant revisions:
Feb 2022	02.02.22	02.02.2022	New Supplement
Sept 2022	22.09.22	01.10.2022	None
Sept 2023	14.09.23	01.10.2023	None
Mar 2024	21.03.24	21.03.24	Updated to reflect developments in online learning, the update of the Quality Matters standard and the OfS review of blended learning.
Sept 2024	19.09.24	01.10.24	None

Equality Impact Analysis		
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