Introduction

This document was last updated in December 2016 and will next be updated by August 2018. For the most up to date version of the York TEL Handbook visit: elearningyork.wordpress.com. Videos from the Handbook are not included in this PDF version, please see the online version.

The York Technology-Enhanced Learning (TEL) Handbook acts as a companion to your teaching practice, presenting approaches that are designed to improve student engagement and learning and teaching.

In the York TEL Handbook

- Recommended approaches to using the Yorkshare Virtual Learning Environment (VLE) to support campus-based courses and the York Pedagogy.
- Good practice check lists for content creation, site design, online activities, assessment and feedback.
- An evaluative and developmental approach to your use of Technology-Enhanced Learning.

How to use the Handbook

This Handbook is written to explain the key principles and considerations first, with detail contained in subsections and additional resources. The Handbook is not a technical manual for our supported tools, but does link out to relevant technical technical guides that can also be accessed via our Guide Search.

Throughout the Handbook there are regular boxes to indicate case studies, guides, examples and methods to develop your practice. See Using the Handbook for further details.

Provide Feedback | Acknowledgements and references

Contents

1. Baseline use of the VLE
2. Module site design, structure and layout
3. Creating resources
4. Embedding online activities within a module
5. Facilitating online activities
6. Assessment and feedback
7. Evaluation and development

All pages are online and linked from the York TEL Handbook Index.
Beyond the Handbook, you may wish to browse our extensive library of case studies and detailed walk-throughs of technology-enhanced learning interventions.

**Feedback and comments**

Feedback from academic staff both at the University of York and beyond is welcomed. There are three ways to share your views on the usefulness and application of the York TEL Handbook:

- **Twitter:** Tweet us @UoY_Yorkshare with feedback or discuss issues raised by the York TEL Handbook with the hashtag #YorkTELchat
- **On the website:** Use the rating stars at the top of each page on the online version of the Handbook and provide feedback or details of how you’ve implemented Handbook concepts using the comments box at the bottom of each page.
- **Email:** vle-support@york.ac.uk
Using the York TEL Handbook

The York Technology-Enhanced Learning Handbook supports both sequential viewing of pages, using the link present on the bottom of each page, or selective browsing using the left menu present on each page of the Handbook. The York TEL Handbook Index also lists every page available.

Features

Screenshots
Throughout the handbook there are screenshots that you can click to view the full-size version.

Beyond the baseline
Summaries of approaches that take use of technology-enhanced learning to the next level.

Case studies
Exploration of practice at York. See our Case Studies index.

Check lists
These are provided at the top of each section as summaries of the considerations for programme, module and activity development.

Developing practice
Detailed guidance beyond baseline use, improving your professional practice or enhancing student learning.

Examples
Examples from practice or illustrative templates.

Guides
Links to ELDT guides, Blackboard guides and YouTube videos. See our Guides index.
Online interventions
Detailed walk-throughs of approaches to using technology-enhanced learning. See our Online Interventions index.

York Pedagogy
Title pages for each section include concepts from the York Pedagogy that link to the contents of that section. These overviews will be enhanced as further guidance on the York Pedagogy is developed.

Links
Links that break the sequential flow of the Handbook will open in a new window.
References and acknowledgements

The York TEL Handbook has been written by the E-Learning Development Team (ELDT), Academic Support Office, University of York.

The Handbook draws upon our wide range of guidance, with links to technical guides, case studies written by the ELDT and academic staff at York, detailed walk-throughs developed by the ELDT, and resources from beyond the institution.

First edition edited by Matt Cornock and Rosie Hare (August 2015).

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Selected references


1. Baseline use of Yorkshare

Yorkshare is the University of York’s Virtual Learning Environment (VLE), available at [https://vle.york.ac.uk](https://vle.york.ac.uk)

The standard practice is that each module has its own space within Yorkshare, called a module site. This section provides a recommendation for the minimum content to be provided within Yorkshare module sites. Yorkshare module sites should reflect the needs of the module and programme, so you should discuss any baseline approach within your wider teaching team.

In this section

1. Programme approaches and the programme context
   - Accessibility
2. Supporting learning
3. Module site content
   - Getting ready for the start of term
4. Delivery and communication
5. Module evaluation
York Pedagogy

Student work and programme-level thinking is core to the York Pedagogy. This section provides a baseline approach to using Yorkshare that scaffolds student work and addresses the following concepts of the York Pedagogy:

- Every programme will have distinctive and clear objectives, and each stage of study will be designed to offer progress towards those programme objectives.
- Carefully-designed student work will enable students to make progress.
- The design of programmes and student work will support the students’ development as autonomous learners.
Checklist: Baseline use of Yorkshare

Use this checklist to ensure your use of Yorkshare aligns with baseline expectations. If any of the items in the checklist are new to you, review the pages in this section of the Handbook.

Access
- You have access to modules you are teaching on.
- Students are enrolled on the module.

Module site basics
- Module site is named as identified on the Timetable.
- Module is available to students.

Module site structure
- Left menu has links to: announcements, module outline, appropriate spaces for course content, assessment information, reading list and contact details.
- Site structure represents module structure.

Module site content
- Announcements: posted an introduction/welcome announcement.
- Module outline uploaded.
- Course content: at least one piece of course content available (e.g. first lecture slides, or overview of module) and information states when material will be available.
- Assessment: module assessment details and submission processes are clear.
- Reading list: via EARL and lists (in chosen form) are available to students.
- Contact details: set expectations of when and how to be contacted.

Course content
- Items / folders are named appropriately, e.g. with week number and topic.
- Files have meaningful filenames, e.g. ModuleName – Lecture 2 – Theory of Everything.pptx
- Content is accessible for all students on module.
- Content abides by copyright restrictions.
- Links to all files and websites work.
1.1 Programme-approaches and the programme context

Consistency
Baseline approaches establish a framework for module sites that lecturers can build upon and adapt to suit their module learning objectives and content. A baseline approach leads to consistent expectations, for example, that all sites will use the same terminology to describe the module outline. It is these consistencies in expectations that can reduce barriers to learning.

Expectations can be managed by identifying common practices across modules, and indicating where and why these differ for modules that are not using similar practices. For example, if the programme team decides lecture slides should be provided in advance, a statement is present to set this expectation with students. If one module does not do this, a statement to the contrary is provided in that module’s site with the pedagogic rationale.

Where a whole programme adopts the same baseline, students are able to use the different module sites more easily, by focusing on the module content rather than navigating the site. Furthermore, there are opportunities to create connections between modules by theming related Yorkshare spaces the same, using consistent approaches or similarly-styled images to connect concepts visually.

Departments can use the checklists in the Handbook to adopt a consistent approach to use of Yorkshare across a programme:

- 1 – Baseline use of Yorkshare – Checklist [PDF]
- 2 – Module site design – Checklist [PDF]
Diversity
Baseline approaches are not prescriptive, but adaptable to different module needs. For example, a programme may contain modules which are taught through lectures and seminars, with other modules that are taught through workshops. Both modules will still have module outlines, reading lists and assessments. Similarly, both formats of the face-to-face sessions will be structured by weeks, or session numbers, with session topics and learning aims.

It is the presentation and provision of module material that provides consistency, rather than the structure and content itself.

Accessibility
The Equality Act 2010 outlines our responsibility to ensure no student is unfairly disadvantaged due to a disability in the way we provide education. However, beyond our legal obligation, there is a moral imperative and a practical benefit in that learning materials and activities developed with accessibility in mind tend to be better laid out, clearer to navigate and thus easier to use for all, not just disabled students. Far from being restrictive, accessibility through online resources can offer a more inclusive educational experience for face-to-face courses. Accessibility advice is provided throughout this handbook.

Examples of accessible practice

- Advance provision of lecture and seminar materials via the VLE allows all students to prepare and is essential for students with some disabilities.
- Online submission of work eliminates the need for students to travel to hand in.
- Digitised texts can be more accessible to visually impaired students.
- Text or aural equivalents for visually conveyed content.
- Captions on videos and transcripts for audio recordings which are key to the learning aims of the course.
- Asynchronous learning activities enable flexible participation and students to control the pace of learning.
- Lecture recordings and video summaries for students with impairments affecting note-taking.
- Online spaces to provide contributions from students who are unable to contribute to class-based discussions.
- Clear and consistent site structures.
Accessibility guides

- Accessibility - Basic Accessibility Mini-Lecture [YouTube]
- Key accessibility guidelines
- Recorded webinar on accessibility (with reference to Yorkshare, Word, PDF and Prezi) [Collaborate]
- Using Yorkshare with VoiceOver on Apple Mac [Google Doc]

Department and programme approaches

Whether at a departmental level or programme level, having spaces on Yorkshare outside of module sites allows for communication channels and resource provision applicable to all students on a programme. Programme sites provide a space for department announcements, handbooks, module choices, careers information and, significantly, resources that support and explain progression between academic years and between academic modules. A recommended approach is detailed here:

- Communication and Resources at Programme Level Using the VLE [Google Doc]

Module site templates

A good starting point for Departments is to establish a template to use for module sites. This template is a basic framework which lecturers can adapt to suit their particular module, however consistent naming, order and structure of sites will improve usability. Department VLE Coordinators should contact the E-Learning Development Team to create a module site template that can then be used whenever we receive new module site requests.
1.1.1 Accessibility

Accessibility is about creating learning resources and activities in a way that does not disadvantage a student’s learning or introduce a barrier to participation because of a disability. Accessibility is a legal requirement and inclusivity forms part of the University’s Statement on Teaching Performance Expectations. Watch the introductory video below for a brief overview or the webinar recording for examples of practice.

There is detailed guidance for creating accessible learning activities and resources throughout the York Technology-Enhanced Learning Handbook. In particular in Section 2. Module site design, structure and layout and Section 3. Creating resources provide fundamental practices for developing module sites and creating learning materials.

We have a Guide for users of Apple VoiceOver [Google Doc] to assist use of the Yorkshare VLE.

Tutorials

This video provides an introduction to key accessibility concepts:

- Accessibility - Basic Accessibility Mini-Lecture [YouTube]

You can also watch the full recorded webinar which explores:

- Document and online content structure with Heading styles.
- Using images.
- Alternatives to text.
- Saving Word and PowerPoint files as PDF.
- Using Prezi.
- Alternatives to multimedia.

The following is a summary of some of the key guidelines.

Formatting text

Use Heading styles to structure documents

Do not use the font type, colour or size settings in Word, Google Docs or the Yorkshare text editor. Instead, use Styles in Word or Google Docs and the Format drop down in the Yorkshare text editor. The default style in the Yorkshare text editor is ‘paragraph’. This allows users to adjust the font, colour and size using assistive technology according to their own preference or needs.
To break down and provide structure to a large document in Word or Google Docs, or to add sub-headings in Yorkshare content Items, use Heading styles.

Headings also provide structure to a page, and in the case of Word documents and Google Docs can be used to automatically create tables of contents. When Word documents are saved as accessible PDFs, the headings provide navigational elements for visually impaired or blind users using screen-reading (text-to-speech) software.

- Video guide to using Heading Styles in Word [YouTube]

**Font type and size**
When creating Google Docs or Word documents, in particular if saving as PDF or printing, use a sans-serif font such as Arial, Calibri or Helvetica, with font size 12pt or greater. Include line-spacing and double line breaks between sections of the document. Ensure any diagrams, tables and charts have labels and spacing around them to make them distinct from surrounding text.

**Avoid large blocks of text**
Large blocks of text are difficult to scan without the spaces created by short paragraphs, and reading on-screen takes longer for the majority of users. These issues are compounded for those with visual impairments or reading difficulties.

**Use left-justified text**
Left-justified text (the normal alignment setting) creates jagged edges on the right side of the document which makes it easier for some students to follow line-by-line. Text which expands to both the left and right edge of the page (full justification) creates “rivers” of white space down through the text which diverts the eye, making on-screen scanning and reading even more difficult. Similarly, right or centrally aligned text is difficult to follow line-by-line.

**Bold, italic and underlining**
Use bold to emphasise words and phrases. Blocks of italic text should not be used as this can appear ‘wobbly’ to some individuals and therefore difficult to read. Underlining can be confused with clickable links on webpages and downloaded documents, so avoid using this also.

**Avoid using BLOCK CAPS**
Many users find block capitals difficult to read. Being able to identify sentence beginnings and endings strongly aids comprehension. Online, capitalisation is also considered to represent the textual equivalent of shouting and may therefore be interpreted as aggressive or comical!

**Web links**

Do not use ‘click here’ for web links
To aid ‘click here’ for web links navigation, screen reader software can read out every link on the page in order, omitting the surrounding text. (This mimics the way sighted users “scan” the page for links, headings
and other content). Using only “here” or “click here” as the text made into a web link can be confusing, as they are meaningless out of context. Instead, make the link text descriptive. For example: “Lecture 1: Introduction (Slides)” rather than “Slides”.

**Make links distinct**

It is important to ensure all links on a page use different text unless they point to the same location. Using the same text for different links could cause unnecessary confusion.

**Using colour**

**Use a solid background colour**

Users with a low visual capability and students with dyslexia have difficulty reading text with textures, patterns or images as backgrounds. Vibrant images may also be distracting on a page.

**Ensure a good level of contrast between background and text**

If you avoid using the font colour settings, this will allow users to customise the appearance of the text. Some individuals can only read black on white or black on yellow for example.

In certain cases you may wish to use colours to distinguish key parts of a resource. In this case, it is worth printing out in black and white to check that there is adequate contrast between the text and background.

**Take into account users with colour vision impairments**

Some individuals have difficulty distinguishing the colours red/green, yellow/blue (colloquially known as “colour blindness”). Be sure not to use these colours on top of or next to each other.

**Do not rely on colours alone to convey meaning**

Individuals using screen readers will not be able to ‘read’ colours, and nor with those with colour vision impairments. These users will be unable to progress if instructions require them to “Click the Green Button”, where colour is the only thing that distinguishes this button from other elements on the page.

**Images**

**Provide a text alternative where necessary**

Images should described with text for users with visual impairments using the ‘alt’ attribute (known as ‘Image Description’ in the Yorkshare VLE). The nature of the description should allow a blind or visually impaired student to learn from the image in the same way as a sighted student. This idea is discussed further in the [webinar recording](#) (11m 22s).

When images are of aesthetic value only and do not form part of the information the page is conveying, an empty alt tag should be used.
Provide a linked textual description for graphs and charts
The alt attribute is read out by screen-reading software and including too much description may be a distraction within a wider context of a document. More complex images may benefit from a separate page or paragraph of description. The alt tag can in these cases be used to direct readers to the section or link where they will find further information. Examples of approaches for charts and graphs are available here:

- Making charts and graphs accessible [Penn State University]

Avoid moving or flashing images
Users of screen magnification software may find difficulty in reading images (and text) if the information is moving around or flashing.

Other websites

Check accessibility support and provide alternatives where necessary
Some websites you link to may require particular interactions, for example functions dependent on use of a mouse. Others may use Flash-based plug-ins for more fancy content. It is important to check that the content you want to embed will be accessible. If you are unsure, provide a text-based equivalent.

Further information
The University’s Disability Services provides additional advice on other learning and teaching considerations for a range of disabilities. Please do consult their guidance and any Student Support Plans for individual students for further advice.

- Supporting Students with Disabilities
1.2 Supporting learning

Yorkshare (the VLE) supports learning on face-to-face courses at a fundamental level: providing access to content and improving engagement. Learning technologies (including Yorkshare tools) offer opportunities for active learning through designed-in, engaging learning activities that align with learning outcomes of the module and programme. Dr Richard Walker introduces the concept of active learning with learning technologies in the context of the York Pedagogy in the short video below:

- [Active Learning Opportunities using Technology-Enhanced Learning tools](https://www.youtube.com) [YouTube]

**First point of access**

Before any face-to-face contact, students are likely to visit module sites on Yorkshare. Students’ first experiences of the module are therefore informed by the structure, information and academic content presented to them via Yorkshare.

Clear labelling, expectation setting and sign-posting supports students’ use of the module site independent of the lecturer, empowering them to find content and position their studying within the context of the module as a whole. For example, if students know that lecture slides will be uploaded on certain days of the week, this will help them to plan their work and prepare for class-based activities.
Develop your practice

- Module site design, structure and layout

Link online and face-to-face

Value of the Yorkshare module site comes from the connections made between the online environment with the face-to-face activities. At a basic level, showing the structure of the taught programme helps students see what is coming up, where connections may exist and guides them through the module content.

Embedding preparatory activities or material prior to seminars, tutorials or lab sessions sets an expectation of prior engagement with content. Additional resources in the module site act as springboards to further reading, discovery and deeper consolidated learning.

More sophisticated uses of Yorkshare will ask students to complete tasks online that are then brought into the face-to-face environment, making better use of contact time for discussion and critical analysis.
Develop your practice

- Creating resources
- Embedding online activities within a module

Case study

- Extend the lecture with Personal Capture
1.3 Module site content

Typical module site content includes:

1. Announcements page
2. Module outline
3. Course content
4. Reading list
5. Assessment information
6. Contact details

Before term starts, you should check your module site and make it available to students. See our quick guide for releasing module sites to students at the start of term.

Announcements page

Announcements in Yorkshare provide a way to communicate with your students that is both quick and effective. All Yorkshare module sites have an Announcements page available by default.

- Making Announcements [YouTube]

Announcements are emailed to students with access to the module site via an automated queueing system, which sends the email within about 20 minutes after the announcement is posted. Students are able to choose whether they receive a separate email per announcement or a daily digest of all announcement emails. However, as shown in the video above, you can tick the option to send the announcement immediately if it is an urgent message and this will bypass any individual settings your students have and send the email straight to their inbox.

Example announcement types

- Welcome to the module
- New content posted to the module site
- Recommendations for further reading, TV programmes or events to attend
- Feedback to all participants based on assessment
Beyond the baseline

- Announcement content

Module outline
The module outline presents the aims and learning objectives for the module. It is an important document that contextualises the module within the programme and can hold indicative reading, list lecture or seminar topics, indicate the types of interactions students can expect and the format of assessment.

Link this document clearly from the left menu within your module site. Signpost to other parts of the module site where relevant, for example if the reading list is provided by EARL and is available through another left menu link.

Guides

- Adding a new content area to the left menu [YouTube]
- How to create a content area [help.blackboard.com]
- Adding an item to a content area [YouTube]
- How to create an item [help.blackboard.com]

Course content
Course content will be dependent upon your module structure and teaching approach. Consistent labelling across a programme will bring coherence to your Yorkshare sites, enabling students to get to the content quicker.
Yorkshare is the first point of contact students will have with course content, therefore **titling and labelling content appropriately** will support students' understanding of the structure of the module and connections between content. Include references to the **term week number and topic** to reaffirm the link between the Yorkshare materials and face-to-face teaching.

Files that are uploaded should have **meaningful filenames**. For lecture slides, this will include reference to the module title and topic of the lecture. For readings, this will include reference to the module title and the author of the reading. This is a **basic accessibility adjustment** that improves usability for all students, but is essential for students who use screen-reading software so that they can get to the content quicker.

**Section 3** of the York TEL Handbook provides guidance on types of content in more depth. You should also be familiar with **key accessibility guidelines**.

**Typical content**

- Lecture slides, including how and when they will be available.
- Lecture, seminar, workshop, lab titles.
- Preparatory activities.
- Related resources, web links.

**Guides**

- [Adding an item to a content area](https://youtube.com) [YouTube]
- [How to create an item](https://help.blackboard.com) [help.blackboard.com]
Beyond the baseline

- Labelling content to improve Yorkshare site efficacy
- Different resource types
- Embedding online activities

Reading list
The University Library manage the reading list system known as EARL (Easy-Access to Resource Lists). EARL is integrated into Yorkshare, so students are able to access key texts and additional readings through links to catalogue details, e-books and articles within the same space as their course content.

EARL lists can be arranged with different lists separated by week or topic to provide better structure and improve visibility of key texts.

Guides
- Contact infodir-earl@york.ac.uk for all EARL queries and to arrange individual training
- University Library Resource List Policy
- Creating EARL lists [PDF]
Assessment information

Provide information about the method of assessment, marking criteria and how feedback will be provided (consider both formal and informal/class-based forms of feedback). Your Department may also be using online submission points, and these should be linked within the module.

Clear assessment information is particularly important for students on joint programmes and elective modules, as assessment processes may be different between Departments.

Section 6 of the York TEL Handbook includes online assessment workflows for formative and summative work, and approaches to assessment and feedback using Yorkshare or other supported tools.

Beyond the baseline

- Using the assignment tool for formative assessment
- Forms of assessment feedback
Contact details
Include contact details for the module lead, lecturers and lab/seminar/tutorial staff as appropriate to your module. Within Yorkshare more widely, contact details for key administrative staff will help students get to the right person if they are having difficulty accessing sites, content or submitting work.

Different staff will have different preferences over how and when students should contact them. Set clear expectations with students within Yorkshare module sites.

Contact example
Module lead: Your Name Here

Contact me for questions about the module structure, assessment requirements, absence. Preferred contact is by email in the first instance. You are welcome to attend my drop-in office hours without prior appointment.

lecturer.name@york.ac.uk

Office hours (term-time only): Monday 4pm-5pm, Wednesday 12pm-1pm.

Beyond the baseline

- Facilitating online activities
1.3.1 Getting ready for the start of term

It is essential that your module sites are up to date and ready to be released to students at the start of term. Our Baseline use of Yorkshare checklist (below) from the York TEL Handbook provides more information about that would be included in an ideal module site.

- 1 – Baseline use of Yorkshare – Checklist [PDF]

Three essential steps to make your Yorkshare module site available to students

1. Verify Student Enrolments

   Ensure that the correct students are enrolled and that the number of students are enrolled looks correct.

   1. Log into Yorkshare and go to your module site.
   2. In the Control Panel menu, click Users and Groups.
   3. Click Users.
   4. Review the list of users. To see all users on one page, click Show All.

   If the number of students enrolled looks too small, either consult our Guide to Enrolling a Cohort of Students, or contact the E-Learning Development Team at vle-support@york.ac.uk.

2. Run Basic File and Link Checks

   - View your site structure using Student Preview Mode and check that links work.
   - For sites that have rolled over from the last academic year, ensure that the content is up to date. See our Quick Fix video [YouTube] for three approaches to manage rolled-over content.
Any items with date release will need updating for the current year. You can do this for all content items in one go by using the Date Management Tool.

3. Make sure site is available.
Finally, you will need to make your site available so that students are able to access it:

1. Log into Yorkshare and go to your module site.
2. In the Control Panel menu, click Customisation.
3. Click Properties.
4. In Section 3 of the form ‘Set Availability’, set Make Course Available to Yes.
5. Click Submit.

If you have any queries about your Yorkshare module sites, please don’t hesitate to get in touch with us at vle-support@york.ac.uk.
1.4 Delivery and communication

Key Concept

Regular and relevant communication engages students

Delivery of material
Consistency and clarity come from well-structured sites and clearly labelled material. However, bear in mind that students will not necessarily find all the content you upload. In the first face-to-face session you have with students:

- Show the module site on Yorkshare, noting the module site name and location of key content.
- Inform students if/when and where you intend to post weekly materials.
- Show the reading list.
- If you are using Yorkshare for online activities, bring up an example of where these will be found.

During the course of a module you will need to communicate updates to the site to students. This may be within a lecture, or may be using Announcements. At a basic level these actions reiterate the link between the online environment and the face-to-face teaching.

Using announcements
As discussed in 1.3, Announcements provide a quick and recorded way of communicating to whole modules. Announcements also provide opportunities to:

- Prompt students to action, e.g. preparation activities.
- Offer reassurance and clarification over assessment.
Provide feedback general to the whole cohort.

There are particular benefits over the use of the Announcement tool compared to email:

- Everyone on the module site can be contacted at once without the need to know email addresses.
- The announcement remains on the module site as a record of communication.
- If other colleagues have access to the site, they will be able to see the announcements and the teaching team as a whole is more informed.
- Announcements can be timed to be released in advance and hidden, rather than deleted, when no longer required.

It is worth noting though that Announcements created when the VLE module site is Unavailable to Students will not be emailed out. Only create Announcements when the site is available to students if you want them to receive an email copy.

Announcements can also be used within a Programme Site (i.e. a Yorkshare space where all students are enrolled across modules) to communicate with whole cohorts. In these cases, it is important to think about the context of the announcement and its intended audience. See the detailed workflow on Programme-Level use of Yorkshare [Google Doc] for further information.

Announcement good practice

- Sign off announcements with your name.
- Only make announcements when relevant to that module or the programme. Do not devalue announcements by posting social messages or posts of little connection to the learning objectives of the module.
- When posting for a specific group/year, include that group name at the start of the subject line and in the first line of the message.
- Do not include links to sites or resources stored on Yorkshare. These links do not work via email. Images also do not display in announcement emails. Instead state where resources may be found or advise students to log into Yorkshare to see any images.
Guides

- Making Announcements [YouTube]
- Announcements [written guide]

Beyond the baseline: Coordinated approaches

Coordinated approaches to using communication tools ensures those who are kept informed are also those who need to know. Understanding the relationship between module sites and programme sites will enable you to target the right group of students for announcements and content. For further guidance of programme-level approaches, see:

- Communication and Resources at Programme Level Using the VLE [Google Doc]
1.5 Module evaluation

Use of Yorkshare and other technologies to support learning is an integral part of the student learning experience on a module. It is also an aspect of teaching practice that regularly changes, therefore evaluating learning, student expectations and tool choice is a continual process.

This section indicates the importance of including evaluation of the role of technology within your module. Further detail on module evaluation and approaches to evaluating technology-enhanced learning is available in Section 7 of the York TEL Handbook. Considerations for evaluation will be included throughout the Handbook.

### Evaluating the baseline

There is value in assessing the impact of Technology-enhanced learning at different stages of the module life-cycle:

- **Pre-course**: as a diagnostic process to learn about students’ prior experience and expectations of learning technologies.
- **During the course**: reflecting on the online content and activities to make adjustments if necessary.
- **Post-course**: reviewing the impact of course design and delivery methods in supporting student learning.

As an example, consider the Yorkshare module site baseline:
Pre-course: compare your module materials to the baseline. You can use the Baseline Checklist [PDF] as a prompt, or ask a colleague to review your site.

During the course: informally ask students in a face-to-face session whether they have been able to follow the course content online; check the access logs on the module site to see if important sections are being viewed by students.

Post-course: ask a specific question about the site structure, e.g. “Were you able to find materials on Yorkshare to support your learning?”

Example end-of-module question
As a minimum, including questions on the end-of-module student feedback form will provide a measure of the value of Yorkshare within the module.

“Use of Yorkshare (the VLE) has supported my learning and understanding of this module.”

1 – Strongly disagree.
2 – Disagree.
3 – Neither agree nor disagree.
4 – Agree.
5 – Strongly agree.

However, this approach does not offer the detail that may be required to make improvements for future practice, and questions about specific interventions are recommended.

Beyond the baseline

- Evaluating modules
- Evaluating blended learning design

Identifying development opportunities
If, from any evaluation point, there emerges a need for improvements in the use of Yorkshare or other learning technologies, it is worth looking at where you can make both quick fixes and longer-term development to your practice and Yorkshare module sites.
Example quick-fix
A module leader has identified that students are not undertaking preparatory reading for seminars. When the students are asked why this is the case they cite difficulty in finding the reading task. The lecturer restructures the Yorkshare module site to include a link on the left menu called ‘Seminar Reading’ and separate folders for each week, e.g. ‘Week 3 – Smith and Jones paradox’. Within each folder is a single item that includes an outline of the seminar activity and links to the PDF chapters for that week provided by the University Library. In the following face-to-face session the lecturer brings up the Yorkshare module site to show students.

This demonstrates clear navigation, labelling that reflects the face-to-face teaching and context to the resources that have been provided.

Guides

- [Designing effective blended courses](#)
- [Identifying quick wins](#)
- [Evaluation within blended module design](#)

Workshops and support materials
To support quick fixes and longer term developments, the E-Learning Development Team has a number of support resources and workshops:

- [Yorkshare guide search](#) (see “Help” tab in the top right of the screen)
- [Workshops](#)
YORK TEL HANDBOOK: 2. MODULE SITE DESIGN, STRUCTURE AND LAYOUT

This document was last updated in December 2016 and will next be updated by August 2018. For the most up to date version of Section 2 of the York TEL Handbook visit: elearningyork.wordpress.com. Videos from the Handbook are not included in this PDF version, please see the online version.

2. Module site design, structure and layout

This section covers the key themes for the effective design, structure and layout of VLE sites, ensuring that ease of navigation and accessibility of course materials contributes towards student learning and supports the face-to-face programme.

In this section

1. Module sites
   - Mobile-friendly sites
2. Left menu
3. Items, folders, learning modules
4. Titles, descriptions, file-naming
5. Course links
6. Visual design
7. Common problems
Quick checklist
Use this checklist to guide your development of Yorkshare module sites, drawing upon models of good practice to support learning. If any of the items in the checklist are new to you, review the pages in this section of the Handbook.

- 2 – Module site design – Checklist [PDF]

York pedagogy
This section provides advice to support the following elements of the York Pedagogy:

- Students will receive the guidance, support and feedback they need to make progress, and they will understand what they can expect from the University in support of their learning.
Checklist: Module site design, structure and layout

This checklist builds upon and should be read in conjunction with the checklist for Section 1 of the York TEL Handbook on Baseline Use of the VLE.

Module site

☐ The first page that students see sign-posts them towards course content.

☐ The site structure does not require students to click through too many levels (ideally only one folder depth within a content area).

Left menu

☐ Left menu is consistent with other modules in the Department. If not, the site structure has been explained to students in their first face-to-face session.

☐ Left menu is separated using dividers and subheaders to group similar menu items together.

Presenting course content

☐ Content area sections are divided using Items or Folders by topic or week, as appropriate for the module.

☐ Each page shows only what is relevant for that topic or week, as appropriate for the module.

☐ File names for uploaded resources are descriptive and consistent in style.

☐ Item and Folders have a consistent approach to titles, including a week number if appropriate.

☐ Items have descriptions which summarise the content being linked.

☐ Out of date content, for example content that was rolled over from last year, has been hidden or removed from the site.

☐ The site design is appealing, not using the default theme and where appropriate images have been used to provide context.

Promoting engagement

☐ All online activities or preparatory tasks have clear instructions directing students to the appropriate resources.

☐ Instructions are clearly written with numbered bullets and are separate from description, summary and additional resources.

Section 2 of the York TEL Handbook supports this checklist.
2.1 Module sites

As introduced in **1.2 Supporting learning**, online materials are usually viewed independently by students and prior to face-to-face sessions. Resources may also need to be accessed by colleagues supporting students or external examiners. Therefore, they must be usable without the need for a face-to-face guide.

**Basic structure**

Yorkshare module sites are structured in three main ways:

- Left menu
- Folders
- Items
As most Yorkshare sites will start with an Announcements page, it is the left menu that will be the first step in navigation. From there, the folders and items within content areas will need to guide students to the content they need to prepare for taught sessions, complete activities or undertake assignments. Each provides an opportunity for clear sign-posting: leading your students from one piece of content to the next.

**Sign-posting approaches**

Sign-posting can be done in two main ways:

1. **Clear labelling** of links with familiar words.
2. **Instructional directions** to lead through the content.

Clear labelling and instructional directions enable users visiting the site to know **where and when** to look for content and **why** materials should be used.

Users with screen reading software will also know exactly what is contained within the site and be able to navigate their way around effectively, **improving accessibility**.

Your site will also be **usable by another colleague** without having extensive knowledge of the module itself, for example an academic supervisor, disability support staff or an external examiner.

**Labelling links**

Links should enable students to **guide themselves** through your module site. Whether you are creating links in the Left Menu or titling Items within Content Areas, use **words that students will be familiar with** across the taught programme. Students will be expecting labels such as ‘Reading List’, ‘Assessment’, ‘Lectures’ and ‘Seminars’ or ‘Labs’.

You will need to **be consistent** with your colleagues. For example, if your academic supervision sessions are referred to a tutorials, ensure that this is not the same terminology used to describe small group problem-solving classes.

**Instructional directions**

If you require students to look at specific pieces of content, you should direct them to it. For example, a link to a PDF book chapter requires an instruction for students to read that PDF. This helps contextualise the resources made available, **making explicit your expectations** rather than expecting the student to second-guess what the requirements of the course are.

Instructional directions are even more important for activities using online tools or activities which are not connected to face-to-face sessions. Further detail on instructional directions is in **5.1 Instructional writing**.
Example

Preparing to Study sites are examples of online spaces that require clear instructions to lead students through the content. The first page of the Yorkshare site can be used to provide these instructions, as shown in the example below:

First-pages

Most Yorkshare sites will use Announcements at the first page. This is appropriate for bringing current information to students attention. Before the module starts however, there should be, as a minimum, an introduction Announcement that welcomes students to the module and directs them to any content they should look at before the first taught session.

Example welcome announcement

Hello Technology & Education students,

Welcome to the module. This is a single-term module with a weekly lecture and a weekly seminar. Lecture materials will be posted online in the ‘Lectures’ section at least three days before the lecture. Handouts will not be provided in lectures, so you are welcome to bring your own devices or print out as you prefer. The seminar material will be available from Week 2 in the ‘Seminars’ section. In preparation for the first lecture, please take a look at the video linked for the Week 2 lecture to give you an idea of the sorts of challenges to be considered when looking at technology-enhanced learning. Best wishes,

Matt
Beyond the baseline
There are two approaches to providing sign-posting on the first page:

- Sticky announcements
- ‘Blank page’ content areas

A permanent, ‘sticky’ announcement will be the first thing students see when they click into the site. It could contain information such as the module aims and learning outcomes as well as information about the start of the module and where students should navigate to next.

A ‘blank page’ content area is a single Item which can be populated with any content. Depending on your HTML ability, you can create visually appealing first pages that also provide sign-posting instructional guidance.

The video below demonstrates both these approaches:

- [LT Bite – Structuring VLE Sites – First page layouts in Blackboard (Yorkshare) on YouTube](https://www.youtube.com/watch?v=example)

Guides
The subsequent sections in this part of the Handbook go into more detail about how to construct a good site structure along with specific guides. Once you have an understanding of the principles, if you wish to focus on the technical training you can complete the online self-paced ‘Getting Started’ tutorial if you are new to using Yorkshare.

- [Getting Started with Yorkshare](https://example.com/getting-started)
2.1.1 Mobile-Friendly Sites

If you are designing learning activities that will involve students using the Yorkshare VLE on their mobile device, you will need to design your VLE module site to be compatible with mobile devices. Whilst the VLE can be used on mobile device browsers, there is the option for students to use the Bb Student app. This is designed to allow quick engagement with the VLE, resources and some types of activity.

- **Recommended Mobile Apps for Students**

**What works best for mobile access**

- Compact module sites with clearly ordered items on the left menu.
- No more than one level of content within Content Areas (i.e. only using Folders where absolutely necessary).
- Clear titles and descriptions.
- Include all task details, links to resources and guidance within one content Item rather than separate links to files or resources (i.e. do not use File or Web Link tools from the Build Content menu).
- Include text-based web-links for any embedded content.

**What doesn’t work**

- Full text-editor capability.
- Certain forms of embedded media and third-party tools. Include text web links to these resources in addition to any embedded content.
- Descriptions on certain tools.
- Colour schemes and colours for Item Titles (for accessibility for some disabled users you should not refer to links by colours anyway).

That’s not to say that you cannot use these approaches, just that you should not design activities that are dependent upon these tools and resource types for use in mobile contexts.

**Content and site structure**
<table>
<thead>
<tr>
<th>CONTENT TYPE</th>
<th>MOBILE DIFFERENCES TO DESKTOP</th>
<th>ADVICE IF DESIGNING FOR MOBILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEFT MENU LINKS</td>
<td>Clearer identification of the tool type that the link goes to. Order differs from desktop version and does not show headings. Does not use a colour scheme.</td>
<td>If the site has a complex structure, label links with a keyword that clusters different areas together or use an ordered reference, e.g. week number.</td>
</tr>
<tr>
<td>ITEMS</td>
<td>Item Title is shown. This is then clicked to access the Item content.</td>
<td>Put all learning resources and task instructions within one content Item. Else a student will need to keep flicking back and forth to view different aspects of an activity.</td>
</tr>
<tr>
<td>FOLDERS</td>
<td>Folder Title is shown. This is then clicked to access the Folder contents. Folder Descriptions shows at top of Folder contents list, but not images or links to files.</td>
<td>Do not include links or images within Folder Description.</td>
</tr>
<tr>
<td>WEB LINK</td>
<td>Web Links created using the Build Content menu will not show the description.</td>
<td>Add web links within Items to ensure links are contextualised. Do not use the Web Link tool within the Build Content menu.</td>
</tr>
<tr>
<td>FILE</td>
<td>Files will be opened with a supporting app on the mobile device, rather than downloaded.</td>
<td>Files added using the File tool in the Build Menu do not allow description. As Items that otherwise provide context require extra steps to view on mobile, upload files within Items instead.</td>
</tr>
<tr>
<td>LONG LINK TEXT</td>
<td>May require horizontal scrolling.</td>
<td>Keep link text short. Rather than using the full URL for the web link, use the title of the resource. Do not use ‘click here’ as this is poor practice for accessibility.</td>
</tr>
<tr>
<td>TABLES</td>
<td>Tables can be used, but mobile screen size may require scrolling and headers will not be visible.</td>
<td>Tables should only be used for data.</td>
</tr>
<tr>
<td>IMAGES</td>
<td>Images will appear, but larger images may require scrolling.</td>
<td>Images embedded within Items do not resize to the mobile screen size. You may need to provide a link to download the image (the image itself can be</td>
</tr>
<tr>
<td>Tools</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CONTENT TYPE</th>
<th>MOBILE DIFFERENCES TO DESKTOP</th>
<th>ADVICE IF DESIGNING FOR MOBILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANNOUNCEMENTS</td>
<td>User will be prompted to open browser view.</td>
<td>Encourage students to have their email alerts sent to their mobile. Copies of announcements are sent by email.</td>
</tr>
<tr>
<td>ASSIGNMENT SUBMISSION – ANONYMOUS (SUMMATIVE)</td>
<td>User will be prompted to open browser view.</td>
<td>Do not submit summative work using mobile devices. It is important that a successful upload occurs and students can check their submitted files.</td>
</tr>
<tr>
<td>ASSIGNMENT SUBMISSION – STANDARD (FORMATIVE)</td>
<td>Can view deadline, instructions and can submit. Does not show preview or annotations. Can</td>
<td>Assignment submission is discouraged using mobile devices. For low-stakes,</td>
</tr>
<tr>
<td>Tool</td>
<td>User action required to access tool</td>
<td>Design consideration</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>BLOGS</td>
<td>User will be prompted to open browser view.</td>
<td>Do not design an activity that requires use of the Blog tool on mobile devices with small screens.</td>
</tr>
<tr>
<td>DISCUSSION FORUM</td>
<td>Plain text replies only.</td>
<td>Mobile-friendly tool, best used for mobile discussion tasks.</td>
</tr>
<tr>
<td>JOURNAL</td>
<td>User will be prompted to open browser view.</td>
<td>Do not design an activity that requires use of the Journal tool on mobile devices with small screens.</td>
</tr>
<tr>
<td>PEER ASSESSMENT</td>
<td>User will be prompted to open browser view.</td>
<td>Do not encourage use of Turnitin on mobile devices.</td>
</tr>
<tr>
<td>TESTS AND SURVEYS</td>
<td>Bb Student only permits completion of Tests (Quizzes) and Surveys within the app for a limited range of question types.</td>
<td>Ensure you only use the following question types for mobile-friendly quizzes: Multiple Choice, True/False, Either/Or, Short Answer and Essay.</td>
</tr>
<tr>
<td>TURNITIN</td>
<td>User will be prompted to open browser view.</td>
<td>Do not encourage use of Turnitin on mobile devices.</td>
</tr>
<tr>
<td>WIKI</td>
<td>User will be prompted to open browser view.</td>
<td>Do not design an activity that requires use of the Wiki tool on mobile devices with small screens.</td>
</tr>
</tbody>
</table>
2.2 Left menu

Structure to engage
The Left Menu is the primary navigation of the site. As mentioned previously, consistency across a programme will improve usability and accessibility. However, module leaders should use the Left Menu to reflect the structure of their taught programme. This saves students time figuring out where to find materials and redirects their efforts to engage with the course content.

Examples of sections in the left menu:

- Announcements
- Module outline
- Staff contact details
- Lectures – containing lecture notes and information
- Seminars – containing class activities and instructions
- Resource list
- Assessments – information about and electronic submission points (if online submission is being used).
Alternatively, you could use the Left Menu to structure the site by topic or week. This is particularly useful where you have lectures, labs or seminars that are intrinsically linked and dependent on each other.

Guides

- Adding a Content Area onto the left menu [YouTube video]
- Create Course Areas for Content [help.blackboard.com]
- Showing or hiding a left menu item [YouTube video]
- Re-naming a left menu item [YouTube video]
- Re-ordering the left menu [YouTube video]
- Adding a link to a tool on the left menu [YouTube video]

Subheaders and Dividers

Use menu headings and divider lines to break your Left Menu up into logical sections.

For example:

- Information: announcements, outline, contact details
- Content: lectures, seminars, reading list
- Assessment: assessment information, submission points

Beyond the baseline

Content in a site should be divided up into subsections, however this can introduce an additional layer of folder navigation if your first level of navigation, the Left Menu, has too few links. Left Menu Subheaders and Dividers allow you to structure the menu with a larger number of links, to reduce the need to create additional layers of navigation with folders.

This example from a Programme Site illustrates how the Left Menu has enabled more content to be accessed with a single click by using menu subheaders and dividers. If the subheaders were not used, there would be fewer entries on the menu resulting in a folder structure that was deeper and more difficult to navigate.
The menu is more than just a list of links. With the use of subheaders the whole site content is outlined. The subheader text is also written with the student in mind, for example ‘Your programme’, ‘Academic development’ and ‘Contacting staff’ relate to the sorts of information and guidance that students would be seeking within this site.
2.3 Items, folders and learning modules: places to put content and learning activities

Use items, folders and learning modules to present to students the content that is most relevant to them at that point in time, whether that is a specific learning activity or relating to a specific week in the taught module. Presenting too much information reduces the impact of clear instructions and can leave students unsure of what they should be focusing on. Items and folders structure your content to avoid this problem.

**Items and folders**

An Item on Blackboard is a single piece of content such as a file, link, written instructions or embedded media. Items bring together resources on a specific topic or instructions for a specific activity. In the example below, the lecturer has included links to resources with specific instructions for students to engage with these resources within a single item:

### Week 3: Case studies of drug users

In Week 2 you will be allocated a chapter to read for the seminar, all of which are available here as pdfs. Before you come to the seminar, please read this chapter. You should consider the timetable requirement for this seminar and if possible should read more of the chapters to gain a good understanding of the causality of drug use. When reading this chapter, consider the following questions. As they apply to your reading, you may not be able to answer them all:

- How and why did the person(s) use drugs at that time?
- What was their life like before they started? (limits: home, relationships etc.)
- What is it like now?
- How much do the availability of drugs have on their lives? (limits: drug use)
- What about their relationships and/or their family?
- Is there evidence of any psychological, emotional, or social problems? (limits: drug use)
- How much interpretation of events do you think is involved in the person’s account of their drug use?

At the seminar you will be able to discuss the chapter with your fellow students. You will then be asked to use your own questions to facilitate a more general discussion about the causality of drug use. Please come with a question ready on a separate piece of paper.
Folders are ways to group items and links to Yorkshare tools together. If your weekly timetable often has more than one session or learning activity, structure your site with folders, for example one per week, to make your site look neater and make it easier for students to navigate.

The video below provides guidance on the use of items and folders to support student learning:

- LT Bite – Structuring VLE Sites – Layouts with Items and Folders in Blackboard (Yorkshare) [YouTube]

Guides

- Adding a Content Item – Basics [YouTube video]
- How to create an item [help.blackboard.com]
- Adding a Content Folder [YouTube video]

Learning modules

Learning modules offer an alternative way to present sequential content. They are similar to folders, but show items or links to tools one at a time to students. They are used more commonly in distance learning where the structure of the site and order of delivery of content is more important than
quick access to specific downloadable files. In general, you won’t need to use learning modules to support lecture-based courses.

**Beyond the baseline**

- **Unit 1. Assessment of need**
- **Unit 2. Eligibility, ordinary residence and carers**
- **Unit 3. Service provision**
- **Unit 4. Resources, charging and responsibility for services**

When using learning modules, the content needs to be broken down into units of learning, typically one per topic. Each unit will have a series of learning objects (items) that address a particular part of the topic. Yorkshare tools, for example quizzes, may be embedded into learning modules so that students have to complete a task before they have access to the next module using adaptive release.

Students navigate learning modules using next and previous buttons at the top right, or the table of contents to the left.

**Guides**

- [How to create a Learning Module](from help.blackboard.com)
- [How to add content to a Learning Module](Blackboard YouTube video)

**Learning benefits**

**Accessibility**
Poor site structure and labelling is a significant barrier to students who use screen-reading software and other assistive technologies to access Yorkshare. Aim for consistent structures that do not require too many clicks, but also do not present pages with too much content on at once.

**Enabling learning**
Enable students to get to the learning materials quicker, reducing the need for guess-work as to what to click next and reducing confusion over what should be downloaded. Poor navigation
can lead to students not undertaking preparatory tasks, not finding reading or missing key information on assignments. If sites have complex structures, include an explanation on the opening page of the site and show students the site in your first face-to-face session.

Grouping resources and instructions together within one item reinforces the link between the resource and learning activity. This also reduces the number of headings and items on the page, which makes the site appear tidier.

**Exposing the structure**

Group content using items and folders based on the structure of the module, for example by topic, week or activity. The headings of the items and folders then present a clear path for the student to progress through the site. As the screenshot from the Seminars content area shows above, students work their way through the items/folders which are set up one per week. Where additional resources are to be provided, these are added within a folder for that week.

**Guides**

- [Where Do I Start? – Basic Steps for Site Creation](help.blackboard.com)
- [Creating Course Materials](help.blackboard.com)
2.4 Titles, descriptions and file-naming

Clear and descriptive labelling of items, folders and files is essential to the accessibility of your site for disabled students and more broadly, to the receptiveness of the content posted to support students learning.

**Accessibility**

Users of screen-reading software (software that speaks aloud what is written on screen) download resources based upon their link title and file name. Resources, such as a lecture PowerPoint, should be labelled to include the module, lecture or week number and title, so that it can easily be identified by students, in particular those using screen-reading software.

Without descriptive file names, students have to download the file, open it (normally switching to another program and hence a different user interface), and finally skim through some of the content to identify whether it is the content they wish to use. This can be a very time consuming and disorienting process for users of screen-reading software if files are not named descriptively.

It could be very difficult for a student to work their way through all their course content if the slides from all their modules were only named *lecture.pptx*.

**Example file names**

The table below presents examples for a module called Advanced Learning Design. The students are aware this is regularly abbreviated to ALD, so this has been used in the file name.
The good practice examples mean that all resources for a module and week are listed together in a typical file system on a student’s computer. They can also then search by the module, week and topic if required.

**Titles**

Item, folder and Yorkshare tools all have a common creation form (shown above) that include space for a title and a description.

Titles create the headings on a page, which are navigated by disabled students with screen-reading software and act as the visual cues that users will look for when viewing web pages to identify content of relevance to them.
Consistent titling speeds up how students can use sites, for example by using week numbers or tool indicators as prefixes.

**Example titles**
The table below presents examples of titles of items and tools.

<table>
<thead>
<tr>
<th>ITEM FOR LECTURES</th>
<th>EXAMPLE TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item for lectures</td>
<td>Week 4. Models for TEL design</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ITEM FOR ACTIVITY</th>
<th>EXAMPLE TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task: Individual reflective blog</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BLOG TOOL</th>
<th>EXAMPLE TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blog: Individual reflective blog</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ASSIGNMENT SUBMISSION SUBMISSION POINT</th>
<th>EXAMPLE TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drop Box: Technology-Enhanced Learning – Final Assessment</td>
<td></td>
</tr>
</tbody>
</table>

**Descriptions**
Use the description to provide context and instructions for resources and learning activities. The description is the primary place for instructional guidance on how and why resources should be used. The description is also a space to supplement the title field with further information to support students' use of resources.

The description acts as another way for students to check the content and relevance of resources prior to downloading them. For example, an item that links to the lecture slides for one week’s teaching could include a description of the learning aims that week or summary of the lecture. The description would not need to be written from scratch, but simply copied and pasted from the introductory slide in the PowerPoint.

**Guides**
- [Editing an existing item in a Content Area] (YouTube)
- [How to Edit Course Areas and Content Items] (help.blackboard.com)
2.5 Course links

The Course Link tool provides a way of linking from one section of a Yorkshare site to another. Course links support sign-posting and leading students through content in a sequential way. They are commonly used on sites where the content could be viewed in any order, however their presence prompts users to continue looking through the different site sections.

Course links are less useful in module sites as the different site sections are typically based around weeks or topics. Therefore there is already a structure in place to support sequential viewing, and students are unlikely to want to view more than one section at a time as they focus on the work for that week only.

The video below shows an example of a VLE site containing course links compared with a site without them.

- Course Links for guided study [YouTube]

Guides

- How to create a Course Link [help.blackboard.com]
2.6 Site design

There are three main ways to improve the visual appearance of your site: themes, images and banners.

Banners
Banners appear at the top of the home page within a site. These are usually images that represent the theme of the module but may also include text. It is worth noting that the banner images are not accessible to disabled students, so do not include any text in the banner image other than the title of the module.

A banner size of 600px wide x 75px high is adequate.

Guides
- Creating and Uploading Banners [Google Doc]
- Uploading a Banner [YouTube]
- Resizing images for Yorkshare using Paint Shop Pro [YouTube]

Images
Images can be added to any description box and work well in content items to break up large blocks of text. Decorative images that are used on Yorkshare and in lecture slides reinforce the link between the online content and face-to-face sessions. A source of free, royalty-free images is MorgueFile. You can also use Flickr.com/CreativeCommons as long as you attribute the
photographer.

Whenever an image is embedded on Yorkshare, you must add a text description in the Image Description field. The description is for users of screen-reading software that cannot read text contained within images or describe images. The text description should represent what is contained in the image, especially any text elements.

For graphs and charts, the text description will need to present enough information for the student to undertake the activity. How much description and its content depends on the learning objective of the activity. If the focus is on the interpretation of the shape of the graph, the shape should be described. If the focus is on the trends of data, then data points could be described.

Guides

- [Accessibility essentials](#) (watch 1’35 – 7’04) [YouTube]

Themes and colours

The default Yorkshare theme can be quite dull. You can inject some colour into your Yorkshare module sites using the inbuilt Themes. Choose a stylised theme based on the topic of your module or a colour palette. You may like to choose the same theme across a whole programme or Department. Themes can also be used as a visual indicator for different spaces, for example having one theme for academic modules and another for non-academic spaces.

Example

The following screenshot is a typical content area with a single item using the default Blackboard theme:
Applying the ‘Inspiration’ theme has changed the colour of the menu and links within the Yorkshare site to blue and added a background image behind the content, as shown below. The instructor has also added an image to the item to make it less text-heavy.

Guides

- [Choosing a theme](help.blackboard.com)
2.7 Common problems

End of module feedback forms may indicate that improvements could be made to site structure and design. You may also detect student perceptions of the site informally throughout the term.

Difficult to navigate

If students report that the module site on Yorkshare is difficult to navigate, this may be down to site structure or lack of sign-posting at the start of the module.

- Take a look at your module site from the perspective of someone who does not know your module. Can you find lecture slides for a specific week; a required reading for a seminar or prep work for a lab; the assessment approach, question and criteria?
- Avoid having too many clicks to get to content. Review your menu structure if students have to go more than two levels into a content area before they find resources and activities.
- Titles and file names should not be obscure. They should ideally be sequential and descriptive about the topic/resource.
- Include a quick tour of the Yorkshare module site in your first lecture. Show where and when material will be posted.

Lack of engagement with prep work

A lack of engagement with preparatory tasks for seminars, labs or workshops may be caused by instructions not being clear enough or links to resources not being effectively labelled.

- Check that your file names and links to files are descriptive.
- Write instructions for preparatory activities and sign-post to the resources they relate to.

The site looks dull

Visual appearance can have an affective sway on engagement. Small changes to the visual appearance of your site may keep students attention.

- Use a theme that is appropriate to the site.
Include a visual banner image on the first page of the site.

Include images in content areas that are appropriate to the context of the topic being studied.
3. Creating resources

This section introduces the key considerations about learning resource provision, before exploring in more detail the different types of digital resources that may be used to support learning.

Of note is the need to consider disabled students, copyright and the devices students may use to access resources, these are introduced in 3.1, but explored where relevant in the subsequent sections. This section provides advice on what types of resources to use, for example PowerPoint vs Prezi in 3.5.

In this section

1. Resources to meet learning objectives
2. Text within Yorkshare (the VLE)
3. Linking to resources
4. Document creation
   o Images, charts and graphs
5. Lecture slides and presentations
6. Reading lists
7. Multimedia
8. Identifying what works

York pedagogy
This section provides advice to support the following elements of the York Pedagogy:

- Learning resources should map clearly to programme learning outcomes within the context of constituent modules.
Checklist: Creating resources

Accessibility
- Word documents use Heading styles.
- PDFs saved from Word have ‘bookmarks from headings’ and ‘accessibility’ enabled.
- PDFs created by scanning documents are converted to accessible PDFs so that text can be selected and read by screen-reading software.
- Images, charts and graphs conveying information have an accessible equivalent.
- Web links have descriptive text, not ‘click here’.

Student control over use of resources
- Presentations are provided in PPTx format or as PDF full slides per page.
- Full references provided for linked resources.

Reading lists
- Provided to the University Library using EARL.

Fonts and styles in resources
- Clear font used (Calibri, Arial, Helvetica).
- Font-size is at least 12pt when printed.
- Line-spacing and paragraph margins on documents and presentations for clear reading.
- Italic and underlining avoided and not used for blocks of text.
- Colours have adequate contrast and print clearly in greyscale.

VLE text editor
- Default font and size used.
- Large blocks of text linked as a document rather than within text editor.

Images
- Resized to reduced file size/appearance on screen whilst still providing detail required.

Section 3 of the York TEL Handbook supports this checklist.
3.1 Resources to meet learning objectives

Resources for learning

When using learning technologies you can provide different forms of learning content as appropriate to the intended learning objectives and cater for a wider range of learning approaches. For example, text alone may not provide the emotional or aesthetic elements that you may want to convey if you are assessing students affective capabilities. Similarly, graphs, visualisations, video and audio allow for the interpretation of content in different ways, supporting the development of different analytical skills.

There may also be accessibility, copyright or device-compatibility considerations which may mean you need to adapt certain learning content to cater for different students’ needs. These are introduced at the end of this page.

Linking to face-to-face

The resources that you provide online should complement the face-to-face teaching. At a fundamental level this will be provision of materials used in the teaching session online in advance to enable students to familiarise themselves with the content. Likewise, directing students to online resources during and after the session creates a stronger link, implies value and motivates students to utilise additional resources as they are explicitly connected to the module’s learning activities.

As an introduction to choosing resources, watch the Replay Lecture Capture below from our PGCAP TEL Workshop.

- TEL Workshop Primer - Content
Resource types in Yorkshare

Yorkshare (the VLE) is a content creation tool in its own right. Items, folders and learning-modules have been discussed in Section 2.3 already. The item tool is particularly powerful as a way to link to, structure and embed content and is explored further in Section 3.2.

From the Build Content menu within a content area (see screenshot below), you can quickly add different forms of media and embed publicly available resources from Flickr (images), SlideShare (presentations) or YouTube (video). See Blackboard Help for explanations of each of the content types.

Resource types outside Yorkshare

You may wish to create your own resources or link to open educational resources created by academics from other institutions available through repositories such as Jorum or OER Commons. As you do so, you will be making decisions about the format, quality and accessibility of content. Resources are commonly created as Word Docs, PowerPoints or PDFs. However, there is a vast range of different online tools that you could use to create engaging resources, for example mindmaps using MindMups on Google Drive, data visualisations with Fusion Tables via Google Drive,
virtual pinboards using Padlet, Pintrest or Lino, presentations using Prezi or PowToon. A selection is discussed in this document:

- [Creating resources: visual digital presentations and online resources](#) [Google Doc]

Further examples are listed in the Prezi linked below and discussed throughout this Section of the Handbook:

- [Prezi: Content & Multimedia](#)

**General considerations**

**Accessibility**
Each resource type will have different accessibility considerations for different forms of impairment. These are explored in this Handbook. Often, **small changes to practice will improve the accessibility** of the resources you create. A summary of common adjustments is provided here:

- [Section 1.1.1 Key accessibility guidelines](#)

**Copyright**
If you are using content you have found online you will need permission to reupload it to the Yorkshare VLE. Be aware though that just because a piece of content has not been labelled as copyrighted does not grant you permission to reuse. Where possible, it is safer to link to the original document rather than reupload to Yorkshare. Typically, material will need to be clearly labelled for educational use or released under a license, such as Creative Commons.

Recent changes to copyright legislation have clarified the rules for educational use. However, not all material is covered by the changes and there are some resources that require licenses, such as
published works (for example books, journal articles), music and other creative works. Full guidance is provided by the Library Copyright Adviser.

- University of York Copyright Website
- University of York Practical Guide to Copyright
- About Creative Commons

**Devices**

With mobile devices, such as smartphones and tablets, becoming more common and offering instant access to learning resources, the resources you provide to students should be mobile friendly. Resources which require old technologies such as ‘Flash’ are not likely to work on mobile device web browsers, for example Prezi (although Prezi has a mobile app that can be used to view presentations). The physical interactions on mobile devices are also different. Drag-n-drop interactions are difficult to achieve if not correctly implemented or if the device has a small screen size. Right clicking interactions are pretty much impossible.

If you are providing resources that are not device independent, for example a resource that requires a specific app or program, you will need to make this clear to your students. Do not assume that all students have a PC (or a Mac) that they can install software onto. For many, their access to PCs will be those provided on campus.

Conducting an ‘entry survey’ to establish device ownership within your module will help you tailor your resource provision.
3.2 Text within Yorkshare (the VLE)

Text editor

Learning benefits

Presenting content using the text editor, rather than requiring files to be downloaded, makes it quicker for students to access content. There are also significant benefits by linking to files and web resources within the text editor when providing context and instruction to frame such resources within a specific learning activity. The learning activity does not have to be an interactive one, but could simply be reading a journal article or preparing for a lab. Using the text editor to set out an intended learning objective and relate it to the linked resources, students will understand the relevance of the links and connect them to the module as a whole.

However, the text editor should not be used when presenting large quantities of text, for example a reading list. Such information should be contained within a downloadable document to ensure that the pages presented in Yorkshare are not overloaded with text. Presenting too much within content areas makes it difficult to identify required actions and learning instructions. Large blocks of text also introduce barriers to accessibility, for example students with Irlen Syndrome will find reading blocks of text on screen particularly difficult.

Examples of practice

- Emphasise selected key words using bold, not underline or italic.
- Use bullet points, where appropriate to avoid blocks of text and to present options.
- Use numbered bullet points for instructions.
- Use headings to break down longer items (using the Format drop down in the text editor tool bar).
Limitations

The main limitations of the text editor relate to the formatting. This is another reason to keep the text within items short and specific for a learning activity.

Copying from Word or other websites is problematic as it often copies ‘styles’ which are difficult to edit within the Yorkshare text editor. For example margins, fonts and font sizes will be coded up and difficult to change resulting in a layout that doesn’t match the rest of Yorkshare.

Another limitation is to do with linking to other sections of a Yorkshare module site. The Course Links tool (Section 2.5) is the only way to link between sections of your site robustly and in a way that will ‘roll-over’ without links breaking each year.

Whilst the controls in the text editor itself are limiting, it is possible to create very appealing layouts with the text editor if you are familiar with HTML.

Copying text

You may want to copy text from Word documents or PowerPoint slides you have used in face-to-face sessions when you upload content to Yorkshare. For example, you could copy the text from your introductory PowerPoint slide into the text box to accompany the slides when you upload them, to add context to additional resources and introduce the session.

If you are creating a resource with a lot of formatting, it is best to provide this as a separate document (a PDF, Word doc or other as appropriate). Otherwise, copy into Notepad before copying into the Yorkshare text editor as this will remove all formatting and enable you to present the text clearly within the module site. The videos below show how this can be done quickly and easily.

Guides

- Copying text from Word into the VLE [YouTube]
- Copying text from PowerPoint into the VLE [YouTube]
Formatting text

Use the **Bold** and **Format** options within the text editor toolbar. You can also indent, use bullet points, subscript, superscript and mathematical symbols. Avoid using the font and font size selectors as this will make the content look different in style compared to the rest of York share.

For headings, always use the Format menu, rather than simply bolding text. Heading styles are detected as headings by assistive technologies whereas bold styling is not.

You may also encounter `<div>` tags instead of `<p>` (paragraph) tags (see the tag indicator at the bottom left of the text editor). Text will appear without a space between paragraphs when saved. This is easily resolved by selecting each paragraph and choosing ‘Paragraph’ from the **Format** drop down in the text editor toolbar.

**Guides**

- [Working with Text in Blackboard](help.blackboard.com)
- [Video: Formatting Text](help.blackboard.com)
- [Blackboard Content Editor Basics](help.blackboard.com)
- [Content Items – Advanced – Inserting files within text](YouTube)
3.3 Linking to resources

**Learning benefits**
Provision of resources is a fundamental part of learning and teaching, which Yorkshare is particularly strong at supporting. Resources, whether files, images or links to external sites or documents, should be meaningful to a specific learning activity and of a high quality.

Good resources can inspire, provoke critical thought, demonstrate a concept and offer contrasts to the lecture course. Resources, particularly those available on the web, can be interactive and engaging to help visualise processes and present ideas in different ways.

However, simply linking to resources may not be enough without providing an indication to their relevance or how students are expected to engage with the material. Clear instructions, particularly in early stages of a degree programme, support students transition to independent study and encourages them to approach resources in a critical way.

- [Specific guidance for images, charts and graphs](#)
- [Specific guidance for document creation](#)
- [Specific guidance for multimedia resources](#)

**Linking to resources**
All links should have descriptive text. Do not use ‘click here’ as the text that is the link. For example, a link to a website should have the website or document name as the link. A link to a book chapter will have the chapter, title or author as the link. Using only ‘click here’ text creates a small area for users to click upon to access the resource (particularly for mobile devices and users with mobility
impairments), and makes navigating and understanding the destination of a link very difficult for screen-reader software users (they would hear ‘click here’ many times).

To avoid copyright infringement, link to resources that are freely available online rather than re-uploading them to Yorkshare. This also assists in students’ referencing, as they will have the original source to reference rather than an uploaded version that may be devoid of referencing data.

If resources require a specific program or log-in, provide guidance for this prior to students accessing the link. In addition, for files that are embedded within the Text Editor, include the file type extension in the link or in brackets after the link.

Example content item with links

**Week 5 - Regulation vs Prohibition**

*In this week’s seminar we will explore the arguments for and against the legalisation of drugs and the various ways in which such a system might be regulated. In advance of the seminar students are asked to read chapters presenting both sides of the argument. The case for which is detailed in the pdf above and the case against this chapter will be discussed in week 6 due to copyright regulations.*

You might also like to look at the Transform Drug Policy Foundation website which is the leading organisation advocating legalisation of drugs in the UK.

We will also be watching a short film at the seminar looking at the legalisation of cannabis in the USA States of Colorado and Washington. Please read these brief articles about these new laws so that you can discuss the film more easily:


**Guides**

- **Content Items – Advanced – Inserting files within text** [YouTube]
- **Adding a web link** [help.blackboard.com]
3.4 Document Creation

Word vs PDF vs Google Docs

The three most common formats of document are Microsoft Word, PDF and Google Docs. This page explores the benefits and constraints of each.

Common principles

Headings
Structuring documents using headings provides readers with an outline of the content, identifies key points and increases the technical accessibility of the document. Heading styles include hidden metadata about the structure of the document which can produce tables of contents automatically and navigation anchors for screen-reader users.

Headings should be structured based on a hierarchy: Heading 1 is the most important, followed by Heading 2, Heading 3, etc. You can have multiple Heading 2 under a Heading 1. However, you should not go from Heading 1 to Heading 3 without an intermediary Heading 2. Headings provide visual styles too, these can be changed in Word, but it is important to recognise headings as structural, not design. The video below explores the role of headings in more detail.

- Accessibility – Headings in Word, PDFs and WordPress [YouTube]

Colour
Colour should not be the only method used to convey information. You should also print preview the document in black and white to ensure any colour images/charts are still able to be interpreted when viewed greyscale.
Images
Images should have captions, and if not described within the main text of the document should be described using the ‘Alt Text’ description within the image properties. Images that have been copied into your document may need resizing or compressing, if your document has a large file size when it is saved.

Font, size and spacing
To make your documents more accessible to users with specific disabilities, use a clear ‘sans-serif’ font such as Arial, Calibri or Helvetica in size 12pt or greater. Use left justification (not full justified text), with clear line spacing (1.5 or more) and double line spacing between paragraphs. Further advice from Disability Services.

Comparison

<table>
<thead>
<tr>
<th>FORMAT</th>
<th>GOOD FOR</th>
<th>MAIN LIMITATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD DOCUMENT</td>
<td>Can be downloaded and edited. Templates. Reading lists.</td>
<td>Not always possible to open on mobile devices.</td>
</tr>
<tr>
<td>PDF</td>
<td>Compatible across devices and operating systems. Most mobile devices don’t require additional software to open PDFs. Good annotation possibilities with Adobe Reader and other software.</td>
<td>Cannot be edited without specialist software.</td>
</tr>
<tr>
<td>GOOGLE DOCS</td>
<td>Group work and ongoing/development documents. Collaborative and simultaneous editing. Controlled sharing/access.</td>
<td>Limited functionality in comparison to Word. Internet access required to access current version of document (but with offline/download options).</td>
</tr>
</tbody>
</table>

Word
Word documents are best when you want to provide maximum editing and functionality for students.

All Word documents should be created in .docx format, rather than .doc. Older versions of Word can open .docx files with the freely available extension provided by Microsoft. According to Microsoft, .docx files tend to be smaller and less prone to corruption than the .doc format. Students do not need Microsoft Office to view .docx files, and can download the free Microsoft Viewer or use other office packages such as OpenOffice or Google Docs. It is worth noting that Office365 is available to all students for free through the University.

Word documents are not as accessible as PDFs for some screen-reading software.
PDF
PDFs are the most portable of the document formats, capable of being opened on practically any device. PDFs can be highlighted, annotated and drawn upon if viewed within an appropriate piece of software (for example Adobe Reader). PDF text cannot be edited easily and text cannot be added in a practical way. Content can be copied from a PDF, either by selecting text or images, or through the use of screenshot functionality (see Sourcing Images in Section 3.3).

PDFs created using photocopiers do not create accessible documents as the PDFs are simply images rather than true digital text. PDFs created through scanning documents must be made accessible before being provided to students.

Word documents that are saved as PDF files will need to be saved with the accessibility options checked.

Google Docs
Google Docs should be used where you are looking for collaboration, group commenting and a document that may evolve over time but need to be linked from one place. Google Docs are not files in the traditional sense, they exist only online. Whilst you can export Google Docs as Word files or PDFs, the exports represent a snapshot in time of that Google Doc. Google Docs are always current, keep a history of edits and hence avoid some of the problems of multiple versions of files getting muddled. You can also control who can view, comment and edit on a Google Doc.

The SlideShare below outlines the key differences between Google Docs and usual files:

- Google Drive and Google Docs Training Session for Higher Education [SlideShare]

Guides

- How to check the accessibility of PDFs [YouTube]
- Converting scan PDFs to accessible PDFs with PDF Converter [YouTube]
- Saving Word docs as accessible PDFs [support.office.com]
- Getting started with Google Docs [Google Help]
- IT Services Google Apps learning resources [Google Site created by IT Services]
- IT Services IT training [IT Services]
3.4.1 Images, Charts and Graphs

When providing images, charts and graphs you will need to consider: sourcing, resizing, referencing and ensuring accessibility.

**Sourcing images**
You can of course use your *mobile phone* or a more sophisticated *camera* for creating your own photographs and images, for example capturing whiteboard content from tutorials.

Alternatively you can use images from online repositories which grant permission for re-use. Look for ‘attribution’ or ‘license’ information. Images licensed using Creative Commons, for example those found through [Flickr’s Creative Commons search](https://www.flickr.com), are free for educational use as long as the source is attributed.

Please note the [advice provided by the Library](https://elearningyork.wordpress.com) when using third-party copyrighted images.

**Referencing**
All images, charts and graphs should be provided with an *accurate reference*, appropriate to the style used in your Department. This encourages correct referencing in students and allows students to follow up the original data.

**Creating images, charts and graphs**
As general guidance for *file types*: save as JPG for photos and save as PNG where there is detail or text included.

**Screenshots**
Images can be created of your computer screen using [screenshots](https://www.flickr.com). This is useful for providing guidance on software or interactive resources. On a PC, use the PrtScn button on your keyboard to...
copy the screen to the clipboard. On a Mac, press Command (⌘) + Shift + 4 to select an area of the screen to capture and the screenshot is saved to the desktop. You can then load into an image programme to tweak the screenshot or paste directly into a PowerPoint slide. It is worth cropping to the area of the screen you are explaining and resizing the image so that detail is clear.

**Charts and graphs**

Charts and graphs created in Excel can be copied and pasted into an image program (Windows Paint) or a PowerPoint slide. They can then be saved as a PNG file to use on the VLE or on other platforms.

**Diagrams**

Diagrams and graphics that represent relationships or processes can be created using PowerPoint’s SmartArt tool. This provides a number of templates for your diagram that just require text to be added in the placeholders. The SmartArt graphic adapts automatically should you need to add in extra placeholders. Other presentation platforms, such as Prezi, also provide layouts and templates to show relationships and processes.

**Infographics**

You may wish to explore third-party tools to create infographics and visualisations. These tools allow you to present large amounts of complex data or present ideas visually. Some of the infographics are interactive, for example using Google Fusion Tables, and others you can export as PDF or PNG image files.

**Guides**

- [Infographics using Google Fusion Tables](https://www.youtube.com) [YouTube]
- [Infographics and diagrams using PowerPoint SmartArt](https://www.youtube.com) [YouTube]
- [Infographics using Piktochart](https://www.youtube.com) [YouTube] and [Examples](https://www.youtube.com) [YouTube]
- [Exporting images from Piktochart to PowerPoint](https://www.youtube.com) (includes cropping and resizing images on slides) [YouTube]
- [Sankey flow diagrams using SankeyMATIC](https://www.youtube.com) [YouTube]

**Resizing**

You will need to adjust the size of most images you upload to Yorkshare. In particular, images taken directly off a camera will be several MB in size and could be resized to smaller files, ideally less than...
1MB. This makes accessing the image quicker and saves space on Yorkshare and student devices. When the image is embedded in a content item it should also be resized in terms of how it displays on the screen. Otherwise it will be difficult to view as a whole image on mobile devices.

**Guides**

- [Resizing an image using GIMP](Google Doc)
- [Resizing an image using Microsoft Paint](Google Doc)
- [Resizing an image using Photoshop](Google Doc)
- [Resizing an image using SUMO](Google Doc)
- [Resizing an image using Preview on Mac OS](Apple Support)

**Accessibility**

Where an image, chart or graph is used for a learning activity, an accessible equivalent must be provided. This ensures students who have a visual impairment are able to use the resource, hence will not be unfairly disadvantaged in the learning of the module. Examples of accessible equivalents include:

- Text summaries of the image or data
- Provision of the original data source
- Audio descriptions of the image or data

Accessible practice includes catering for students with colour blindness by ensuring colour is not used as a sole distinguishing feature in data, for example a chart with red and green data lines should also have different line styles. Accessible practices are outlined below and should become part of your standard practice when using Yorkshare.

**Developing practice**

- [Making charts and graphs accessible](Penn State University)
- [Section 1.1.1 Key accessibility guidelines](Link)

**Adding to your Yorkshare VLE site**

Images can be uploaded directly into Yorkshare using the text editor on Items, Folders, Learning Objects and collaborative spaces such as the Blog, Discussion Board and Wiki tools.
Guides

- [Adding images](help.blackboard.com)
- [Content Items Advanced – Embedding an image](YouTube)
- [Wrapping text around an image in the VLE](ELDT blog post)
3.5 Lecture Slides and Presentations

PowerPoint vs PDF vs Online

Provide presentation materials in a format that allows students to support their own learning approaches

Common principles

Provision of slides
Lecture slides should be provided to students in advance of the session. This enables students to choose the format to suit their needs when bringing the slides to the lecture, for example on a tablet for digital annotation and digital file management. Lecture slides must be provided to disabled students in advance, and providing all students with these resources caters for students who have not disclosed a disability but may still require advance sight of the slides to plan their approach in the lecture.

Slide formats
Slides should be provided in a format that can be used offline. This is particularly the case in some lecture theatres where wi-fi connectivity is patchy. You can provide slides as PowerPoint files, PDF or with Google Slides.

If using Prezi or KeyNote, ensure the presentation is exported as a PDF. When exporting slides as PDFs in PowerPoint or Keynote, only use the full slide layout. Students can use page layout printing approaches to set full slides to multiple-slides per page depending on their needs. Do not use other types of layout, including the three-up note view, as this restricts students’ ability to view and annotate detail on the slides. Slides and notes view when exported to PDF also makes the slide content inaccessible to disabled students with screen-reading software.

Google Slides is the Google Drive equivalent of PowerPoint. Instead of having a presentation file, the slides are only stored online. Google Slides is useful for bringing together presentation content
collaboratively. However, due to the limitations of functionality you may wish to export to PowerPoint for finishing touches.

**Slide templates**

PowerPoint, Keynote, Google Slides and Prezi all have templates that can help you create visually effective slides to structure a lecture and convey content. You can also find freely available or Creative Commons licensed slide templates, such as Slides Carnival, which require an attribution slide to be included at the end:

- [Slides Carnival](#)

**Comparison**

<table>
<thead>
<tr>
<th>GOOD FOR</th>
<th>MAIN LIMITATIONS</th>
</tr>
</thead>
</table>
| **POWERPOINT OR KEYNOTE** | Linear, structured presentations.  
  Ease of use.  
  Fully editable, with features such as SmartArt and animations.  
  Includes dedicated space for notes. | Not always possible to open on mobile devices.  
  Difficult to annotate directly on slide. |
| **PDF** | Compatible across devices and operating systems.  
  Most mobile devices don’t require additional software to open PDFs.  
  Good annotation possibilities with Adobe Reader and other software. | Cannot be edited without specialist software. |
<p>| <strong>GOOGLE SLIDES</strong> | Collaborative presentation writing. | Requires internet connection for access. |</p>
<table>
<thead>
<tr>
<th></th>
<th>Sharing with specific users or groups.</th>
<th>Limited design and styling controls.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Includes dedicated space for notes.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PREZI**

- Presenting relationships between both holistic and detailed concepts.
- Offers non-linear exploration of content.
- Visually appealing presentations, free and web-based software.
- Easy insertion of YouTube videos.
- Requires app to view Prezi on mobile devices, only available on iPad and on Android.
- Additional steps required for accessibility.
- Software and appropriate presentation approaches can be difficult to master and take time to learn.

**Guides**

- Microsoft PowerPoint 2010 [support.office.com]
- Microsoft PowerPoint for Mac 2011 [microsoft.com]
- Apple KeyNote [help.apple.com]
- Google Slides [support.google.com]

**Prezi**

Prezi offers a different form of presentation approach to PowerPoint (and similar). Prezi is best for showing relationships between different parts of a presentation, as it has the capability to provide zoomed-out, holistic views of the entire session, whilst also offering sequential templates for detail. This can support students who think more visually.

Prezi does take some time to master, in that you have to think more creatively about the messages you are conveying and how they relate to each other. From a technical point of view, the interface is different and you have to limit the temptation to include zooms and rotations to avoid your audience feeling sea-sick.

Prezi can also be used to present online content in a visual way, however be aware they are not accessible so alternative methods for presenting this content must also be provided.
Making Prezi accessible
If you are using Prezi as your main lecture medium, you will need to create an accessible alternative. Prezi automatically creates a transcript based on the text content of the presentation. However, this is often out of sequence and without punctuation or structure. You can use this transcript to create an accessible Word version instead. Similarly, if you are exporting Prezi to PDF, these are saved as image-based PDFs and cannot be read by screen-reading software so you will need to convert them to accessible PDFs using another program, for example PDF Converter.

Examples of Prezis
- Basics of using Yorkshare [Prezi]
- EdTech: Useful online tools for academics [PGCAP Prezi, Information Directorate]
- Interactive map of the library [Prezi, Information Directorate]

Guides
- Prezi – Educational License
- Prezi Support [Prezi]

SlideShare
SlideShare is an online platform for disseminating presentation slides. Unlike the applications outlined above, SlideShare is not a presentation creation tool. It can, however, be used for posting presentations publicly, engaging in wider audiences and providing presentations for other academics and students to download and use. Similarly, you will be able to find a number of presentations for reuse on SlideShare.

SlideShares can also be embedded directly into Yorkshare module sites using the Mashup tool within the text editor.
Example of embedded Slideshare

THE FOUR MOST IMPORTANT POWERPOINT RULES FOR SUCCESSFUL PRESENTATIONS

Read through this presentation in advance of Tuesday’s class, alongside preparatory reading from the resource list for week 4.
3.6 Reading lists

**EARL**

The University’s resource list policy, as approved by the University Library Committee, states that reading lists must be provided to the Library using EARL (Easy Access to Resource Lists) which is a tool owned and managed by the University Library, linked to through Yorkshare module sites.

- **Resource List Policy** [University Library]
  EARL is supported by the University Library and technical help is available in the guides linked below and by contacting infodir-earl@york.ac.uk.

**Guides**

- **EARL – Creating resource lists** [PDF]
- **EARL – features and benefits** [written guide]
- **EARL – troubleshooting common problems** [written guide]
Approaches to using EARL

Students, particularly those in the first year, may not have come across reading lists before. The expectations of their value and how they should be used will also differ between teaching staff. In order that students understand how the reading list may support their learning on the module, the list should include guidance on how it is to be used. For example, flagging key readings related to face-to-face activities is a key approach to encouraging targeted use of reading lists. This is balanced by encouraging exploration of further readings through learning activities and assessments that value wider reading.

Digital texts
EARL includes a facility to request digital copies of book chapters. This is recommended for key text provision where limited physical copies of books cannot meet the demand of large cohorts. There are limitations due to licensing restrictions, allowing only one chapter per book per module. As a result you may need to draw upon a wider range of books to have a key text digital chapter each week and confer with colleagues about your digital resource provision if you are team-teaching.

List structures
There are three main approaches to using EARL:

1. **Complete reading list.** The recommendation here is to break your module list down into themes that students can target when working on specific topics or on their assignment.
   Breaking the list down by themes also makes key readings for each theme stand out more.

2. **Key texts only.** Links are provided to the key texts, ideally with digitised chapters or resources as appropriate.
3. **Library-use only**. EARL is not used for students, but is used to provide the Library with the information they need for book purchasing and indicative student demand.

### Creative approaches to reading lists

Reading lists also enable students to gain an insight into your practice as an academic. For instance, by including a one-line statement for selected items as to why they have been included on the resource list provides students with the justification and decision-making approach that you would hope they would develop themselves.

Reading lists can also be thought of as working documents. Whist the EARL system is not editable by students, they can produce print-friendly versions which could be saved as PDFs. Students could then annotate these PDFs with their own notes and reading logs. Beyond EARL, copying a reading list to a Google Doc and encouraging students to comment and advise other students on recommended reading creates a shared ownership of the reading list as a working document for that cohort.

Further creative approaches would be to include activities that require students to develop their own reading lists, with justifications as to why resources were included.

### Developing your practice

Reading lists are one of the fundamental learning resources provided to support learning for a module. As such, the resource holds a lot of potential to support students’ transition from dependence to autonomy as scholars. The summary linked below explores the role of reading lists as resources and pedagogic approaches to harnessing their potential.

- [Reading lists as resources](#) [PDF]
A presentation and workshop at the Higher York E-Learning Network Conference explored the role of reading lists, challenging the approaches commonly adopted.

- [Presentation slides](#) [PDF]
- [Summary of discussion workshop](#)
3.7 Multimedia

Multimedia, such as audio or video, provides an alternative way of conveying information and evoking responses from students. Video resources in particular are readily available online and can be easily created by both teaching staff and students. Whether you are using a webcam built into your laptop, your smartphone camera or specialist screen-recording software such as Camtasia or Replay Panopto ‘At-Desk’ Capture, this format of resource is now quick to create and becoming part of standard practice.

**Learning benefits**

Video is particularly strong when you are trying to convey processes, abstracted ideas or emotive concepts. Video is the combination of sound with visual stimuli, in the same way that the lecture environment can support the controlled explanation and exploration through a bigger picture. Short videos can also be used to provide summaries of group activities or feedback. The video itself may be a ‘talking head’ of the lecturer, or it could be a webcam pointing at a whiteboard or paper to work through problems. USB visualisers can also be purchased for this purpose.

Screencasting, which is the recording of what appears on a computer screen, is one of our supported technologies and enables existing skills in the development of presentations through PowerPoint or Prezi to be used to create supplementary learning resources. Screencasting can also be used to show software demonstrations and problem solving, for example with specialist software packages core to the curriculum.

Audio is also quick to produce and offers the possibilities for informal feedback, for example on presentations or group work, and bringing outside expertise into the module. Audio recording an interview with a subject or practice expert can provide an alternative perspective for students. These are quick to create with mobile phones, but good recording equipment does not cost too much and can be a worthwhile investment.
Accessibility
Multimedia offers significant accessibility advantages, particularly to students with dyslexia who may favour visual or aural content over text-based resources. Multimedia resources can be repeatedly played, have the speed of playback adjusted or as a bare minimum simply paused to allow time for students to process and write notes.

However, multimedia can be a barrier to students with hearing or visual impairments and as such there are accessibility adjustments to make. All resources should have an accessible equivalent, which will vary depending on the significance of that resource to student learning. The default would be provision of a transcript, and if possible this should be implemented. Some types of resources may not need transcripts if existing resources that were used in the creation of the multimedia could be drawn upon. For example, using the flipped classroom approach where the video is delivering the core content of the module, all aspects must be accessible to disabled students. This is a legal obligation. For flipped classroom online lectures will need full lecture notes (not just slides) provided to students. For oral or video feedback, then a text-summary (for example your own prompt notes) would be sufficient as long as the same key points are expressed. Subtitles can be created or imported to videos uploaded to the Replay Panopto system.

Creating multimedia resources
In this section we provide guidance on how to create a range of multimedia resources:

- **Videos** – using YouTube, creating videos using your mobile phone or camera, or uploading video files you have permission from the copyright holder to use.
- **Screencasting** – recording your computer screen for narrated presentations, software demonstrations and video feedback.
- **Animations** – using PowerPoint or online tools to create animated sequences.
- **Podcasts** – how to create good quality audio recordings and audio feedback.
- **Exploratory resources** – ways to present other resources or content in less structured ways or using visual metaphors.

Adding multimedia to the VLE
Once you have created your multimedia content there are three main ways to provide it to students: Uploading Files, Replay or YouTube. MP4 video files and MP3 audio can be uploaded as file attachments to Content Items in Yorkshare, or as part of an in-line player contextualised within a learning activity. The Replay platform can also be used to provide videos and audio either as embedded players or links to media. Replay offers the best control for restricting access by
username or module cohort. YouTube videos can be embedded into Content Items, or linked to like other online resources.

### Uploading video files

<table>
<thead>
<tr>
<th>GOOD FOR</th>
<th>Smaller audio/video files uploaded via browser or stored on Google Drive. Students are able to download videos to watch offline.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEARNING BENEFITS</td>
<td>Downloadable – for use where internet may not be available, working on field projects. Privacy – videos are not stored on the open web when uploaded to Yorkshare. Google Drive has a range of access controls also.</td>
</tr>
<tr>
<td>MAIN LIMITATIONS</td>
<td>Students need a media player on their computer or device. Should not be used for large multimedia files as will impact limited personal storage space.</td>
</tr>
</tbody>
</table>

### Replay ‘At-Desk’ Capture

<table>
<thead>
<tr>
<th>GOOD FOR</th>
<th>Record up to four webcams, up to two screens, or audio only. Videos upload seamlessly into the VLE and can handle large file sizes. <a href="https://elearningyork.wordpress.com">Request a Folder for uploading</a>. Downloadable version with reduced file size for distance students, can be turned off. Uploading from your mobile device via the Panopto App.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEARNING BENEFITS</td>
<td>Flipping the classroom – can provide core content and materials for students to watch online in advance to free up time in class for more in-depth discussion. Feedback – making audio/video resource available to individual students securely.</td>
</tr>
<tr>
<td>MAIN LIMITATIONS</td>
<td>Basic online editor for removing parts of recording, cannot overdub. Only records full-screen so may not be suitable for detailed on-screen demonstrations where you need to zoom in.</td>
</tr>
</tbody>
</table>
## YouTube

<table>
<thead>
<tr>
<th>GOOD FOR</th>
<th>Device and operating system compatibility, can embed directly into the VLE via YouTube ‘mashup’ tool or via web link. Uses Google accounts to log in – every university member has access to a Google account.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEARNING BENEFITS</td>
<td>Draw upon wide range of pre-existing resources (lectures from other institutions, TED Talks, software demos). Automated captions (depending on audio quality and accent) for disabled students. Could be used for student-created content to share with the wider community.</td>
</tr>
<tr>
<td>MAIN LIMITATIONS</td>
<td>Privacy: videos can be ‘unlisted’ but would still be accessible to anyone that had the link. You can use ‘private’ adding individual users for access using Google Accounts. YouTube is a third-party provider, not suitable for any content requiring confidentiality. Not accessible in certain countries if International students are working from home, e.g. China.</td>
</tr>
</tbody>
</table>

### Guides

- [How to create Audio and Video links](help.blackboard.com)
- [How to create Mashups](help.blackboard.com)
- [Content Items – Advanced – Embedding YouTube video](YouTube)
- [Uploading Video Files for Streaming with Replay](Google Doc)
- [Replay Video Content – Embedding into Yorkshare](Google Doc)
- [Replay ‘At-Desk’ Capture](Google Doc)

**Legacy guides for York Streaming**

We no longer recommend York Streaming for video content as the player requires Flash which is not supported by all devices. Instead, use the Replay system for uploading video securely. These guides are useful should you need to convert to a supported video format.
Lecture capture
Lecture capture enables students to recap and revise the lecture content. Lecture Captures made using Replay Timetabled Lecture Capture can be automatically recorded and published to students via Yorkshare. This type of resource is explored in more detail in our Key Area page:

- Key Area: Lecture Capture

- Converting video for York Streaming [written guide]
- Streaming video in Yorkshare [written guide]
3.7.1 Video learning resources

Learning with video
Video learning resources can be used to explain something in a different way to text-based resources, with visual cues presented alongside a verbal narrative. They also allow for more affective learning outcomes, such as understanding the emotional impact of a situation or the interactions between people by showing role-play scenarios or first-person experiences that would not be possible in the classroom. Whether you create your own or utilise the wide range of video learning resources already online, you can provide access to expertise beyond the classroom. Videos can be uploaded into Yorkshare in MP4 format, you can use the Replay system for creating and uploading content securely, or you can embed YouTube videos via the Mashup tool.

Effective use of video sits within a learning design that encourages students to draw upon the resource to support their learning and is most effective when combined with an activity. Videos for flipped classroom (where lecture content is delivered in advance of a more interactive face-to-face session) need to be very targeted to address a specific learning objective. Online videos should be short, linking to previous videos or leading into activities. See Section 4. Embedding Online Activities and in particular 4.2.1 on the Flipped Classroom for further advice.

The video below offers a short pedagogical overview before providing some tips on creating video learning resources.

- Flipped Classroom (Shorter) Overview and Introduction to Video Resources [YouTube]

Formative and summative assessments may also enable students to develop skills in video and other multimedia, particularly in modules that aim to address Programme Learning Outcomes relating to communication, public engagement and creativity.

Examples of video learning resources

- Introduction to the module
- Narrated presentation for flipped classroom teaching
- Recording a webcam showing hand-written maths problem
- Recording a video on a mobile out in the field for use as part of a virtual fieldtrip
- Recording a video to demonstrate equipment, saving time in laboratories
- Screencast for a software demonstration
**Getting started with video**

If you have not used video as a learning resource before, the easiest way to start is to look at resources already available online. Search for a video that complements a learning point from your face-to-face teaching. This may be a demonstration of use of a particular tool, an illustration of a process or an expert narrative to contrast with your own lecture. Embed this video into your Yorkshare VLE module site and include a prompt question that will connect the resource with a subsequent learning activity.

**TASK: Follow up from the lecture**

We initially looked at creativity in education, but touched briefly upon ‘divergent thinking’. Watch the video below from 7min40s onwards (quick link), which was taken from a talk by Sir Ken Robinson. As a result of watching the video consider the question: in what way has your experience so far at university encouraged divergent thinking? We’ll look at your answers in next week’s seminar.

**Replay ‘At-Desk’ recording**

Supplemental learning resources can target specific questions that have been raised by students in class. With the Replay ‘At-Desk’ Recorder, simply connect a webcam to your PC or use the inbuilt camera on your laptop to record a ‘talking head’ explanation of a concept. This is useful to clarify difficult ideas or extend the discussion beyond the face-to-face environment and introduce an online activity. The video can either appear alongside your lecture captures, or you can share the video as a weblink. The Panopto mobile app can be a useful way to quickly upload videos you have created on your mobile device.

**Case studies**

**Study One: Making good use of the things we find**

Utilising YouTube lectures  
Dr Ben Dudson, Physics  
[View Case Study](#)

**Study Two: Lights, camera, heritage!**

Bringing a subject to life with student created videos  
Dr Sara Perry, Archaeology  
[View Case Study](#)
Study Three: Virtual fieldtrip

Embedding videos within sequential learning objects
Dr Kathryn Selby, Environment
View Case Study [PDF]

Video introductions
Video introductions to a module contribute towards community building that improves engagement. Such introductions can tie the module to the programme context or outline tasks that should be undertaken in preparation for undertaking the module.

- Best practice video introductions [help.blackboard.com]

Guides

- How to create Audio and Video links [help.blackboard.com]
- How to create Mashups [help.blackboard.com]
- Content Items – Advanced – Embedding YouTube video [YouTube]
- Uploading Video Files for Streaming with Replay [Google Doc]
- Replay Video Content – Embedding into Yorkshare [Google Doc]
- Replay ‘At-Desk’ Recorder [Google Doc]

Developing practice
If you wish to develop your skills in video creation and editing, you can consider combining footage recorded on a camera with other techniques in this part of the Handbook. There are basic video editors on Windows (Movie Maker) and Mac (iMovie). A free editor is available that provides non-linear editing allowing you to move different clips around on a timeline and layer clips using tracks:

- HitFilm Express [External Site]
3.7.2 Screencasting

Recording your computer screen
Screencasting is a way of recording what appears on your computer screen. Screencasting can be used for:

- Recording narrated PowerPoints or other presentation media such as Prezi
- Targeted supplemental mini-lectures
- Software demonstrations
- Video feedback

The different screencasting tools available have different capabilities for editing and highlighting/annotating key parts of the screen. Our recommendations will enable you to choose the tool most appropriate for your use case. We support the use of Replay ‘At-Desk’ Recorder as the quickest way to create screencasts and publish them securely to students. Other platforms, such as Screencast-O-Matic may be used, but these are unsupported and you cannot secure content to University users.

The videos showing approaches to Visual Digital Presentation are all examples of screencasts made using Camtasia Studio which allows additional highlighting and editing functionality.

Guides
- Screencasting – Three recommendations for software
- Replay ‘At-Desk’ Recorder [Google Doc]
- Advice for making recordings

Online intervention
This detailed E-Learning Walkthrough explores how the lecture can be supported by creating short videos, or screencasts, to address topics that students found difficult or to provide additional content to extend the lecture themes.
<table>
<thead>
<tr>
<th><strong>Intervention One</strong>: Screencasting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expanding the Lecture with Screencasts</td>
</tr>
<tr>
<td>Online Intervention Example</td>
</tr>
</tbody>
</table>

**Case studies**

**Study One**: Example videos to support core skills

Screencasting exercise solutions
Dr Martin Smalley, Physics
View Case Study

**Study Two**: Screencast commentary for formative feedback

Recording the screen during marking
Dr Bill Soden, Education
View Case Study
3.7.3 Animations

Animations and visual explanations

Explaining visually
Animations are useful to show how different parts of a process or idea relate to each other. They can be used to present information sequentially, with reveal or highlight effects, or illustrate a scenario. Presenting ideas that relate to processes or the physical world visually helps students to build mental models which more directly relate to the particular concept being explained. This reduces the likelihood of an incorrect mental model being formed from following text description alone (Schweppe, et al., 2015).

Beyond narrated PowerPoints
Whilst narrated PowerPoint slides can be a useful way to convey a lot of information, often these are lists of bullet points and are not engaging to watch. Instead, reduce the content on screen to one key point at a time and keep videos short to address a specific learning aim. You can then make the video more engaging by linking the key points using transitions and basic animations.

Once the slide deck is created you can then record the presentation using the Replay ‘At-Desk’ Recorder or your own preferred screencasting program.

The Replay Student Advice videos were created using this approach.

Alternatives to PowerPoint
There are many online tools that allow you to create animations. Some of these will require you to playback the video on their website, others allow you to export to YouTube or download as an MP4. Often, these platforms provide a free trial but these are limited in some way, often by keeping the more interesting or effective features locked to paid customers. To create an animation with these
tools you have to think of your video as a storyboard, planning what the beginning, middle and end will be and using templates provided on the tool to piece your animation together.

PowToon is a third-party, unsupported platform that can be used to create similar, more lively animated videos. However, these are branded with the PowToon logo and include a short ‘jingle’ at the end. You may not wish to use PowToon for anything too serious or within professional contexts.

- **Visual Digital Presentation – Animated Videos with PowToon** [YouToon]

GoAnimate is another unsupported platform which you can use to create animations that illustrate role-playing scenarios. This may be useful to present discussions of topics, sensitive issues or approaches to handling inter-personal relationships.

**Guides**

- [Replay ‘At-Desk’ Recorder](#)
- [Recording advice](#)
- Video walkthroughs: [Visual digital presentation](#) [YouTube]
3.7.4 Podcasts

Audio-only recordings
Podcasts in the traditional sense are audio recordings that are redistributed through an online platform allowing an audience to subscribe and receive the latest podcast automatically.

Within Yorkshare, we use the term podcast to refer to any audio recording that has been made available to students. You can create a short podcast to introduce the next session, recap a complex topic, provide feedback or a summary of recent email queries. When you upload a podcast, make an Announcement to let students know it is there.

Audio feedback can also be created using Replay ‘At-Desk’ Recorder to share recordings to individual students or groups.

Creating recordings
To create audio-only recordings quickly and publish these to your students you can use the Replay ‘At-Desk’ Recorder.

Otherwise, you can create your own MP3 files and upload these to Yorkshare. You can use a program such as Audacity (available on campus PCs) to make recordings.

Use the Audio option within the Build Content menu within Yorkshare to upload MP3 files. A player is embedded on the page and also plays using the Blackboard Mobile App.

Guides
- [Uploading Audio Files for Streaming with Replay](#)
- [Replay ‘At-Desk’ Recorder](#)
- [How to create Audio and Video links](#)
- [Make, fix and mix: Audio with Audacity](#)
- [Recording advice](#)
3.7.5 Exploratory Resources

Self-paced multimedia resources
Exploratory resources provide an interactive way to explore a collection of different learning resources. They allow you as a lecturer to collect and curate files, links, videos and images and present them as showcases to students. The common format for an exploratory resource is a canvas-like online space, such as Padlet (a digital pin board) or Prezi.

On their own, such exploratory resources may not necessarily encourage engagement with the learning content and will need to involve some form of activity that connects the use of the resource to a particular learning outcome. This may be requiring students to select one or two items presented within the exploratory resource for further study, or may require looking at the resource as a whole (such as a map-based resource) and drawing conclusions based upon contextual information.

Large collections of material, particularly text-based material, may be better presented outside the VLE. This can be a particularly useful approach if you wish for your resources to be publicly visible or the resources have been created as part of a wider project that involve collaborators. Google Sites is one platform that allows you to create mini-websites, which you can think of as an online textbook, but with scope to add images, files and video.

- Visual Digital Presentation – Simple websites and portfolios using Google Sites [YouTube]

Collaborative spaces
The tools and platforms used to create exploratory resources are often designed to be used collaboratively. This provides scope for learning activities that encourage students to contribute their own ideas and resources to a shared online space. The use of collaborative spaces that are visually engaging can be useful for collecting ideas for discussion or simply for students to introduce themselves.

- Visual Digital Presentation – Digital pin board and resource curation using Padlet [YouTube]

Digital pinboards such as Padlet can be embedded within your Yorkshare VLE module sites, appearing as the first page of the site instead of Announcements if you prefer. Such approaches have been used in Languages For All modules where Padlet has been used to gather together why students decided to take the module, showing how students had similar interests and motivations.

Embedding this sort of content requires us to enable your account to do so, so contact vle-support@york.ac.uk for assistance.
3.8 Identifying what works

Evaluating Resources

We have already mentioned the importance of understanding student needs in terms of accessibility and device ownership early on in the module development and content creation process. Throughout the module, you will need to be perceptive to student comments and feedback on the value of resources, identifying access issues and engagement.

Peer review

Undoubtedly, one of the best ways of evaluating learning resources is to show them to colleagues. Encourage peer review of your materials, identifying areas such as clarity, logical progression, aesthetics, interactivity. You could identify from previous student feedback areas that you need to focus on, then request a colleague to review the materials and your suggested approach to address the feedback. By sharing content and undertaking a peer review approach for others, you will also pick up ideas for how to creatively use resources in your own modules.

Course statistics

Yorkshare logs when users access different parts of a module site. During the term you should look at whether key resources are not being used and then work out the cause. Reasons could include:

- Part of the site being hidden from students. Check using Student Preview.
- The resource being buried within the site. Check sign-posting and number of clicks required to access resource.
- The resource is not linked to a face-to-face or specific online activity.
The resource is not clearly labelled.

Student devices do not support the resource, either through file type or inability to install specialist software.

**Guides**

- **Using Student Preview mode** [Google Doc]
- **Course Reports** [help.blackboard.com]
- **How to create an Item Statistics Report** [Blackboard YouTube channel]
- **Using the Performance Dashboard in a VLE module** [YouTube]

**Module evaluation**

If you are particularly keen to find out the value of different resource types, include space for this on your end of module evaluation. Drawing attention to the different types of resources you have used, you could ask which format supported learning and which format hindered learning the most. Whilst a simple check box or scale question will provide indicative data, you will need to probe further as to the reasons why. Students will respond differently to resources that address different learning preferences, for example.
4. Embedding Online Activities

This section begins by exploring the relationship between online and face-to-face learning spaces and activities. There are activity planning templates to support development of your learning design, reiterating the importance of objective-driven learning in 4.1 and 4.2. The video below provides a brief introduction to this concept.

- Re-conceptualising the use of learning technology [YouTube]

The tools explored in this section take the focus of student activity. For advice on resource creation tools, see Section 3. Creating resources. The guidance in 4.4 will help you choose tools and online platforms for learning with 4.5 providing overviews and case studies of use for the supported tools at York. We have also included unsupported tools that offer different forms of interaction and student-created resources.

In this section

1. Learning objectives drive online activities
2. Linking online and face-to-face activities
   - Flipped classroom learning design
   - In-class technology for active learning
3. Setting expectations

4. Choosing the right tool
   - Factors for consideration
   - Feedback opportunities across tools

5. Tools for learning activities
   - See the Index for complete list of tools in 4.5

6. Common problems

York pedagogy
This section provides advice to support the following elements of the York Pedagogy:

- Carefully-designed student work will enable students to make progress.
- Students will understand the work they are expected to do and how that work will contribute to the achievement of the programme objectives.
Checklist: Embedding online activities

Planning blended learning
- Learning objectives have been developed for the activity.
- There is a link between the online and class-based activity.
- There is a link between the activity and the module overall.

Setting expectations
- Students know what to contribute, where to contribute and by when.
- Students know how staff will review contributions, how feedback will be provided and in what form the feedback will be.

Choosing learning tools: key considerations
- Privacy and security: the tool/platform abides by Data Protection legislation.
- Online identity: students are able to control how much they share with others.
- User experience: the tool/platform is straightforward to use with appropriate guidance.
- Reliability: the tool/platform is available anytime of the day and in any location.
- Access: the tool/platform can be accessed by devices owned by students.
- Accessibility: the tool/platform has an accessibility statement and no student is at a learning disadvantage due to a disability that affects their use of the tool/platform.
- Retention: contributions from students can be archived for revision or auditing (a requirement for any credit-bearing activity).

Choosing learning spaces
- You are aware of student preferences over where they wish to engage online.
- You are aware of student preferences over the use of their personal devices.
- Large blocks of text linked as a document rather than within text editor.

Supporting students use of tools
- Clear technical guidance is available for the tool.
- Contact details are provided for both technical and instructional help.

Section 4 of the York TEL Handbook supports this checklist.
4.1 Learning objectives drive online activities

Learning objectives and learning outcomes

This section of the handbook starts by ensuring you have defined learning objectives for your learning activities, i.e. what you intend to cover and the experiences you want students to have. Once you have identified the type of activity you wish students to undertake, this will inform your choice of learning technology. Through the online activity students will then try to fulfil intended learning outcomes, i.e. what students should be able to do as a result of learning through the activity.

Establishing learning outcomes
Start by defining what students should be able to do as a result of undertaking a learning activity. Learning outcomes should be specific and measurable, so that they can be assessed.

By defining learning outcomes, you can align learning activities to support them. Making this alignment clear to students will also bring meaning to the learning activity, setting clear expectations about the value of the activity to students learning for the module.

Writing learning outcomes
The following guide from QMUL is a useful starter for writing learning outcomes and relating them to module and programme aims and objectives.

- Good Practice Guide on Writing Learning Aims and Outcomes [PDF]
Learning objectives for online and face-to-face

Linking learning objectives for both the online and face-to-face environments strengthens the relationship between the two learning spaces. Students can then relate the activities and resources provided online to the module as a whole. One approach is to consider how the module would be taught in a face-to-face only environment, thinking about the limitations and constraints that imposes, then thinking about how technology may overcome such limitations. The following document can be used as a template to help plan your blended learning design:

- Blended Learning Activity Planning [.docx]

The template maps your weekly activities, which for the most part may be face-to-face, and what learning objectives you are trying to achieve. This process is particularly useful at identifying where activities across a module, or even a programme, are too similar in nature, providing similar learning activities that do not provide enough variation for a range of learning outcomes or student engagement.

Laurillard (2002, p.189) offers three questions to help work out the balance of how activities support your learning objectives based upon analysis of students’ learning needs:

1. What is the total formal and informal study time needed for the course?
2. What are the key learning objectives defined for the course/programme?
3. Given the needs analysis (common misconceptions, terminology, problems in understanding concepts, what learning needs to be done), what is the appropriate breakdown of study time, formal and informal across the key objectives?

Deciding on a type of activity

A single learning objective can be met through a range of learning activities. The choice of activity is in part about the type of learning experience you wish students to undertake. From there, you can then decide upon the most appropriate learning space (online or offline) and the most appropriate tools to facilitate students meeting that learning objective. This is covered in Sections 4.4 and 4.5. As an introduction to modelling different pedagogical approaches, watch the Replay Lecture Recording below from our PGCAP TEL Workshop (York Users Only).

- TEL Workshop Primer - Activity [Panopto]
Types of activities
The Learner Engagement cards shown at the link below detail eight different forms of learning events. Each form of engagement offers recommended resources and suggested tools for learning activities.

- Learner Engagement Cards [SlideShare]

You might find a single card does not represent the type of activity you wish your students to undertake. For example Problem Based Learning approaches might require identification and analysis of the problem, exploration of resources, application to the problem scenario and reflection to develop understanding. For each of these phases of PBL there may be different requirements on the learning space and tools, for example how will you facilitate the exploration of resources via online links, will you adopt individual reflection or group-based discussion activities to develop understanding?

Online interventions

Intervention One: Problem-based learning

Supporting PBL
Use of Yorkshare tools to encourage students to engage deeply in a case study and apply knowledge.
4.2 Linking online and face-to-face activities

The majority of modules taught at the University will now include some component of blended learning. At a basic level, as identified in Section 1 of the Handbook, there will be provision of key learning resources through Yorkshare. Where you wish to include online activities, further planning must be done to support students’ independent work through specific activity, access to resources or use of online tools.

Section 4.1 provides a Blended Learning Activity Planning [.docx] template that looks at the pedagogical aspects of activity design. Here we look at a five-phase approach to realising the learning design and developing the links between the online and face-to-face components.

Implementing the blend

Use the template linked below to detail how you will consider each of the five phases of implementing your learning design.

- Five Phase Design Template [.docx]

For a short activity, for example a one-week blog activity, you will not need much detail as the link may simply be bringing work from the blog into the face-to-face session or providing feedback online. For a longer term blend, for example a group project over the course of a module, each phase will require more thought as the relationship between the online and face-to-face will need to be stronger and sustained.

Phase 1. Preparation

Use the Blended Learning Activity Planning [.docx] template to outline your rationale for using technology-enhanced learning. The student activity and weekly tasks part of the template will help
identify how online and class-based activities relate and complement each other. If the plan appears disjointed, for example the activities do not build upon each other or there is little relationship between individual student activity and group or student-tutor interaction, reconsider the relationship between your online and face-to-face tasks.

The aim should be to promote active learning and engagement, achieved by having learning outcomes that identify the purpose for students to work online, so it will be clear to them how the online component is relevant and value-adding to their learning. Similarly, set assessment tasks to reward both class-based and online performance, and in turn motivate students.

**Phase 2. Socialising learners**

Before your activity starts, introduce students to the aims and objectives of the module, your approach, and what they’re likely to gain from it. The justifications you included in the Preparation stage could be shared to students here. Induct students to Yorkshare and the tools they will be using, do not assume that students know how tools work. You will also need to set expectations regarding their participation and ‘netiquette’ (the types of behaviour, writing style and interactions expected), see 4.3 Setting expectations.

For longer duration blended design, establishing an online community through ice-breakers or introductory exercises that encourage knowledge-sharing and discussion will help students feel at ease contributing in an online space. Collective ownership of the space can be created by welcoming students online and responding to their questions, or allowing flexibility in how the online space is designed. See 5.2 Before the activity for further guidance.

**Phase 3. Supporting student participation online**

Throughout the activity, you will need to provide ongoing support to students to minimise any anxiety and build confidence in line with the expectations you have set for participation. You can encourage students to help each other, but do not use this as a substitute for your own contribution and interaction with students. Actively guide and facilitate online; model the learning you wish students to undertake; provide feedback; encourage students to initiate discussion topics and share resources. Section 5.3 During the activity suggests approaches to online facilitation.

At a basic level, keep the module site up to date with relevant resources. For example, you may make announcements, respond to FAQs, introduce new resources, and stage availability of activities or quizzes in line with the face-to-face module content.

**Phase 4. Sustaining student participation online**

For longer duration activities you may not be actively participating, however you will need to monitor student participation and intervene if necessary. You may wish to use the Performance Dashboard within your Yorkshare module site, see 5.3 During the activity, or monitor how students are bringing work back to the face-to-face environment. Use approaches such as commenting on student contributions to reinforce connections between online and class-based activities.
Phase 5. Summing up the learning outcomes for the module
Resolve outstanding online issues in final class sessions, closing any open discussion and making sure all student queries have been addressed. Re-emphasise the links between the online process and class-based activities with particular attention to learning outcomes, see 5.4 After the activity. Provide feedback on students’ online activities, such as knowledge-sharing, research tasks, collaboration, prompting students to reflect on their performance. Also provide opportunity for students to provide feedback to you on the activity design to inform future practice, see 5.5 Reflecting on the activity.
4.2.1 Flipped classroom

A specific case of blended learning design is called the ‘flipped classroom’ approach. The key idea in flipped classroom learning designs is to shift the one-way delivery of content online to use the face-to-face contact time for collaborative and applied learning. The aim then is to encourage students to come prepared to face-to-face sessions with the basic knowledge of a topic which they can then build upon through learning activities in class and subsequent follow-up activities or assessment.

However, linking to a YouTube video or pre-recording a mini lecture is not likely to support learning on its own. Flipped classroom approaches require designed-in learning activities that enable students to take the lecture content and learn through doing something with it, whether that’s problem solving, discussion or a creative task.

The video below is from our webinar on flipped learning design (slides available) and presents the design approaches for video-based flipped learning:

- Flipped classroom approaches (learning design) [YouTube]

See 3.7 Multimedia on how to create learning resources for use in the flipped classroom model, 4.2.2 on in-class technology for making more of the face-to-face time and the pedagogical approaches in 4.4 for choosing a suitable online learning activity as a precursor or follow-up to a face-to-face session.

Worked examples

Case studies

Study One: Flipped classroom: Mastery model

Enabling small group working and tailored support in computing labs, delivering core content by video online.
Dr Louis Rose, Computer Science
View Case Study

Study Two: Video lectures

Extending the lecture with recorded mini-lectures and tutorials.
Dr Jacco Thijssen, Economics
View Case Study
Online interventions

*Intervention One: Structured learning modules*

**Structured learning modules**

Presenting students with sequentially-organised resources is easily achieved within Yorkshare and provides you with the ability to guide students through a topic in a controlled or predetermined way (e.g. scripted pathway). Videos and quizzes can be embedded within learning modules.

*Intervention Two: Online tests*

**Online tests**

Tests can provide a means for students to self-assess their own knowledge/progress as well as provide you with an indication, both individually and as a cohort, of how well students understand the key themes of your module. Within the flipped classroom model this can inform your in-class activities, particularly if you will need to address misconceptions with targeted mini-lectures.
4.2.2 In-Class Technology for Active Learning

In-class learning technology

Active learning in class

Whilst most of the Handbook relates to online activities, there are clear opportunities for developing active learning within the lecture environment. Use of learning technologies allows for increased interaction in large group teaching, ways to influence the direction of a teaching session, in-class identification of knowledge gaps and collaboration within small groups.

Many of the approaches here will work well within traditional lecture environments, but also complement learning designs that utilise the online space for activities and knowledge-transfer, freeing up the face-to-face time for synchronous interaction and learning. See the previous pages on Blended Learning Design and the Flipped Classroom model.

Session design with in-class polling

The video below (available to UoY users) is a capture of Professor Simon Lancaster’s lunchtime workshop on using ResponseWare in-class polling to stimulate learning through peer instruction activities. One of the significant points is to generate questions in class that force students to think, rather than just recall facts (blog post for this session).

- Simon Lancaster ResponseWare Workshop [Panopto]

The following three session activities utilise TurningPoint ResponseWare where students can respond to questions via their personal mobile device or laptop.
Peer instruction
Peer instruction (Mazur, 1997) is a model for stimulating discussion and learning in face-to-face teaching sessions. The method can be used to challenge students preconceptions through asking them to justify their response to questions with their peers. This can result in a change of thinking, but is supported by the use of pre- and post-discussion polling to show to the lecturer if students have understood an underlying principle. The lecturer can then target subsequent content, perhaps spending more time on aspects the cohort has found difficult, rather than having to guess what students are understanding.

Crowd-sourcing answers
Not all questions can be answered with a multiple-choice response. Text-based responses can be gathered either through a shared Google Doc (works well with certain tasks in small groups) or the ResponseWare app (good for groups larger than 10; responses presented as a word cloud). This approach may be useful to collect ideas from the group which can then be used to stimulate further discussion or generate a collective response to a case study situation.

Modelling decision-making situations
Requiring a more structured approach to planning a teaching session, TurningPoint’s Conditional Branching tool can be used to create a simulation exercise for which all in the cohort are contributing to. Subsequent questions appear based on the majority of responses to a multiple-choice question.

Such activities that may utilise this approach include patient diagnosis, problem solving, applying procedures or exploring consequences to decisions made earlier on in a case study. Combine the questioning phase with peer discussion prior to answering a question to enable a collective ownership of the response, rather than majority guesswork.

Case studies
The two videos below show how in-class polling has been applied at York with both small and large group teaching.

*Study One: Show & Tell: ResponseWare*

In-class polling to engage students in lectures.
Emma Rand, Biology and Joe Fagan, Education
[Watch Presentation (Large Groups)]
[Watch Presentation (Small Groups)]
Guides for in-class polling

- TurningPoint ResponseWare (Overall Guide and Introduction)
- TurningPoint WordCloud [Google Doc]
- TurningPoint Conditional Branching [Google Doc]

Collaborative documents

Utilising Google Docs, Sheets and Forms, you can create engaging in-class activities that require students to create and contribute content to shared spaces. Sheets and Forms can be used to gather data from a cohort in real time, then with the Sheet shared to all involved, the data analysed collectively or in small groups. One of the motivational factors here is that the data comes from the cohort and is owned by them, rather than originating from an abstracted source.

Google Docs can be used within smaller groups either to collect ideas or to complete templates which enable the students to demonstrate their understanding and learning to the lecturer. The lecturer would set up the Google Docs in advance and share with the cohort, allocating a document per group. The lecturer can view the Docs during the session and bring these up on the projection screen if required. The video below explains this process further (tablets are not essential, students can now use any mobile device with a browser or the Google Docs App):

- Tables – Collaboration in class with Docs and Sheets [YouTube]
4.2.3 Designing for Active Learning

Active blended learning designs

As introduced in the video in 1.2 Supporting learning at the start of the Handbook, blended learning focuses on aligning online activity to learning outcomes. The choice of activity involves consideration of the type of learning experience, such as how students will work and interact. Depending on the type of activity, online activities can be designed to:

- Enable learning – through interleaved practice
- Enhance learning – insight through structured interaction
- Transform learning – student-led teaching and discovery

Here we present examples from our case studies that demonstrate different aspects of the active learning spectrum.

Enabling learning

- Making good use of the things that we find – Dr Ben Dudson, Department of Physics. Use of open online learning resources to supplement traditional teaching content and activities in lab sessions, providing differentiated support to students with varying degrees of programming experience.
  - Related Video: Preparatory open courseware videos [YouTube]
Elementary phonetics and phonology [PDF] – Dr Sam Hellmuth, Department of Language and Linguistic Science. Use of online formative tests to provide feedback to both students and instructors on student progress.
  o Related Video: Self-checking understanding [YouTube]

Enhancing learning

Core knowledge, values and engagement skills [PDF] – Greg Rooney, Department of Health Sciences. Use of online collaborative space to support student critical thinking and review.
  o Related Video: Structured interaction and collaborative writing [YouTube]

Students in the feedback loop – Cathy Dantec, Department of Language and Linguistic Science. Blending face-to-face and online activity to develop students’ approaches to independent learning and writing skills.
  o Related Video: Conversational learning and feedback interaction [YouTube]

Transformative learning

Lights, Camera, Heritage! – Dr Sara Perry, Department of Archaeology. Students using creative methods such as video production and blogging to communicate research to the public as part of a professional partnership project.
  o Related Video: Student-created content [YouTube]

Evolutionary ecology [PDF] – Dr Peter Mayhew, Department of Biology. Group-based collaborative research, writing and presentations.
  o Related Video: Student-led teaching and discussion [YouTube]
4.3 Setting expectations

Expectations of roles and participation

Roles of the lecturer and student
In any teaching space the role of the lecturer and student may differ. Whether it is the student or the lecturer leading the learning reflects the underlying pedagogical approach, which is why explaining the approach being adopted is as important as the technical instructions for using a tool.

There may be instances where the student is required to actively participate in a session, perhaps teaching content to other students to demonstrate their understanding or adopting the feedback role usually performed by the lecturer. The lecturer may be adopt a didactic approach to deliver new content, or facilitatory approach, for example in discussions. These roles are established within face-to-face environments implicitly. Online these need to be established, particularly where students are required to lead their own learning or there are expectations over interactions, in particular feedback.

The facility of the tool will depend upon the expectations for contribution, which is why it is helpful to establish these parameters before choosing the tool.

Example: Asynchronous discussion board
Underpinned by a social constructivist pedagogy, some distance learning programmes require students to address a particular discussion topic creating text-based posts to a discussion space. Their posts reflect their own experiences, application of theory and reflections on their understanding. They are encouraged to reflect on each other’s posts, to debate or question and through doing so are exposed to others’ understanding in order to improve their own.
This type of activity is student-focused, where knowledge is not delivered by the lecturer, but developed through social interactions. Students will need to understand that the success of the activity, and hence their learning, will be dependent upon the contributions they make. One approach to address this would be to encourage students to establish ‘ground rules’ for participation at the start of the activity. These ground rules establish expectations for participation and the lecturer will also need to add their own ground rules as to how they will contribute and provide feedback on student work.

Setting expectations
Expectations can be set by the lecturer, or as described above, collectively agreed by students for longer term activities. By setting clear parameters for engagement, students become aware of the value of the activity through the way both lecturer and students are expected to contribute. At this stage in your learning design implementation, consider both expectations for students and staff:

Expectation checklist for students

1. What to contribute (quantity, quality, how is this assessed/measured)
2. Where to contribute
3. When to contribute (deadline for each stage, e.g. initial contribution, reply, summary)

Expectation checklist for staff

1. When contributions will be looked at (the cut-off point for student contribution)
2. When feedback will be provided (this may be feedback or some other form of lecturer activity)
3. Where and in what form the feedback will be provided (this could be in the face-to-face session, e.g. summary of discussion, addressing common misconceptions)

The instructions do not have to be extensive, as the following example shows.

Example: Expectation setting for a discussion activity

[Discussion topic, objective of the discussion, article and structured questions to consider would go here]

Make an initial post to the discussion board by Tuesday 23 June, identifying the key issue from the article you are exploring and justifying or challenging the point made. Then, respond to at
least two people by Tuesday 30 June, providing an example from your own practice in support of or contrary to the issue highlighted.

Your seminar leader will review your contributions on Tuesday 30 June and the in-class discussion topic will focus upon selected similarities and differences between different practitioners.

Online interventions

**Intervention One: Discussion**

**Continuing the Seminar Discussion**

Facilitating students’ ongoing discussion and reflection using blogs or discussion boards.

Case studies

**Study One: Student engagement and communication through discussion boards**

Discussion boards as a “democratic” approach to communication.

Dr Mark Coles, Biology

[View Case Study](#)

**Study Two: Discussion and debate to encourage critical evaluation**

Departments of Biology, Archaeology and Health Sciences

[View Case Study](#)
4.4 Choosing the right tool

This section looks at the way pedagogical approaches suit different tool types, the need to think about forms of feedback, general considerations on the appropriateness of a tool and how to engage students with the use of new tools.

**Pedagogical approaches**

Drawing upon the Learner Engagement cards introduced in 4.1, example tools you can use to support each of the eight engagement principles are listed below. The focus below is on student’s active learning through the use of technology. For ‘receiving’ approaches where the student is engaging with content you have created, see Section 3 of the Handbook.

Clicking on a tool will open further information in a new window for that tool, including guides, case studies and walk-throughs.

<table>
<thead>
<tr>
<th>APPROACH</th>
<th>EXAMPLE TOOLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receive</td>
<td><strong>Student-led presentations:</strong> PowerPoint, Prezi (external); Google Hangouts, Collaborate (synchronous delivery); SlideShare (external publishing); Replay (lecture capture).</td>
</tr>
<tr>
<td></td>
<td><strong>In-class interactivity:</strong> Collaborate (online seminars); TurningPoint ResponseWare (department provision varies), Kahoot (external).</td>
</tr>
<tr>
<td>Create / Publish</td>
<td><strong>Text-based:</strong> Yorkshare Wiki, Google Sites, Blogger, Microsoft Office; WordPress (external).</td>
</tr>
<tr>
<td></td>
<td><strong>Image:</strong> Pixlr (creation, external tool); Yorkshare Wiki, Yorkshare Blog, Google Sites or Google Drive (publishing); Flickr (external).</td>
</tr>
</tbody>
</table>
Further explanation of the link between each of the learner engagement approach and selected tools is explained in the following document:

<table>
<thead>
<tr>
<th>Learner Engagement Approach</th>
<th>Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Video</strong></td>
<td>Replay (assignment folders); YouTube.</td>
</tr>
<tr>
<td><strong>Audio</strong></td>
<td>Audacity (creation, external tool); Google Drive (publishing); Soundcloud (external).</td>
</tr>
<tr>
<td><strong>Debate</strong></td>
<td>Text (asynchronous): Yorkshare Discussion Board, Yorkshare Blog, Google Group.</td>
</tr>
<tr>
<td></td>
<td>Chat (synchronous): Google Hangouts; Collaborate; Skype (external).</td>
</tr>
<tr>
<td></td>
<td>Polling (in-class): TurningPoint; Kahoot (external).</td>
</tr>
<tr>
<td><strong>Explore / Collating research</strong></td>
<td>Exploring: Replay (lecture capture); YouTube; Google Scholar; University Library.</td>
</tr>
<tr>
<td></td>
<td>Collating: Yorkshare Wiki; Google Sites; Yorkshare Blog; Padlet (external); Prezi (external); Twitter (external); WordPress (external).</td>
</tr>
<tr>
<td><strong>Experiment</strong></td>
<td>Data collection: Google Docs; Google Sheets; Google Forms.</td>
</tr>
<tr>
<td></td>
<td>Virtual experiments: Lab Simulations; Open Educational Resources (embedded within Yorkshare or external).</td>
</tr>
<tr>
<td><strong>Imitate / Worked problems / PBL</strong></td>
<td>Video: Replay; YouTube (demonstrations); YouTube (student-created).</td>
</tr>
<tr>
<td></td>
<td>Group work: Yorkshare Blog; Google Communities; Google Sites (publishing, templates).</td>
</tr>
<tr>
<td><strong>Practice</strong></td>
<td>Submission and feedback: Yorkshare Assignment Tools.</td>
</tr>
<tr>
<td></td>
<td>Applying knowledge and judging understanding: Yorkshare Quizzes.</td>
</tr>
<tr>
<td><strong>Meta-Learn / Reflection</strong></td>
<td>Self-reflection: Yorkshare Journal (private); Yorkshare Blog (group visible); Blogger (public).</td>
</tr>
</tbody>
</table>
Including feedback spaces
Your choice of tool may also depend on how you wish to provide feedback to students on their contribution to an activity. The act of providing feedback links the online activity to the overall student work for the module. Feedback is also a mechanism for dialogue with the student, and as such ensuring an appropriate way for providing feedback within online activities will add value and meaning to students’ contributions. Feedback is often provided through commenting functionality on online tools, else you can draw upon student contributions in class.

The following diagram shows how the choice of Yorkshare collaborative tools may have different pedagogical approaches, but each still offer a means for providing feedback to students.

Feedback opportunities exist across all tools [text version]
Factors for consideration

In addition to the pedagogic approach and the technicalities of using a tool, you will need to consider the following factors. If you choose third-party tools not supported by the University, you will need to read:

- Guidance on use of external IT services for learning and teaching [PDF]

There are six key factors to consider when choosing a tool to support an online activity outlined in the resource below:

- Factors for consideration [my.visme.co presentation]
- Factors for consideration [text version]

Develop student ownership

If you have the opportunity, engage your students early in discussions about which tool to use. Enabling students to be part of the decision-making process over how the activity will run will help gain buy-in to the use of a collectively selected tool, and may even introduce you to new tools you have not yet explored.

If you are designing an activity that is dependent on device ownership or the use of a particular third-party platform, survey your students in advance of the module. This will provide you with the information to tailor the activity tool set to the resources students have available based upon what students are able and willing to use.
In the case study below, use of the Yorkshare Discussion Board created a safe and secure space for students to ask questions about lecture content. For the success of this activity, students would need to feel comfortable in asking questions without fear of feeling silly. This is done with establishing a sense of community to the space so that it belongs to the students for this purpose.

Case study

Study One: Student engagement and communication
Use of Yorkshare Discussion Boards to consolidate learning
Dr Mark Coles, Biology
View Case Study

One of the lessons learnt from this case study is that even though these students were part of a face-to-face cohort, there still needed to be an online ice-breaker activity to engage the students online and provide a sense of collective ownership of the online space. This is discussed in Section 5 of the Handbook.
4.4.1 Factors for Consideration

Choosing the right tool

Factors for consideration

Privacy and security
At a fundamental level you may not want course content and student contributions to be publicly available. You may also require tighter restrictions to specific module participants or individuals, especially if personal data or sensitive information is being shared. In these cases, you will need to use a University system. If student work forms part of their assessment, it will be essential to be able to lock and preserve their contributions.

Online identity
If using third-party tools, students may need a separate user account and could object to the data sharing terms and conditions for that platform or not wish to have a public-facing profile on that platform. For some students mixing informal, social spaces with formal, academic spaces may be uncomfortable. Indeed, as a lecturer you may find the blurring of these boundaries difficult to adjust to. As such you should not devise an approach that excludes students on this basis.

User experience
Some tools are easier to use than others and depending on the IT skills of your students, you may need to factor this into your activity design. Difficult tools often offer more complex learning opportunities, however clear guidance and support needs to be available in the use of these tools. Your chosen tool and online space should not raise artificial barriers to participation.

Reliability
If you are using a tool for an activity that contributes to student grades, it needs to be robust and reliable. Be cautious using ‘beta’ labelled tools as these are often in development and may have functional or security flaws.

Access
Some tools and services are not available on all computer devices or everywhere in the world. Mobile devices do not play Flash-based content and the interaction is through tapping via touchscreen, therefore certain functionality may be limited. For distance learning students, accessing sites such as YouTube may be an issue due to local restrictions.

Accessibility
Any tool you choose to use will need to be accessible by your disabled students, in that it is perceivable, operable, understandable and robust to work with assistive technologies. Most tools will have a clear accessibility statement, but if you have any concerns you can contact the ELDT for advice.
Retention
If online activities contribute to the student work for a module, you will need to consider how this will be retained for auditing and appeals. This may mean making an offline copy at the end of the module.
4.4.2 Feedback Opportunities Across Tools

Choosing the right tool

Feedback opportunities
All the tools outlined on this page provide opportunities for feedback, usually in the form of comments on student contributions. These tools are primarily text-based, for asynchronous communication, however there are other opportunities for synchronous collaboration, informal and formal assessment using other tools available. See 4.5 Tools for learning activities for a complete list.

Three groups of text-based tools

Blog
Tools: Yorkshare Blog, Blogger, Google Docs.
Types of activity: logging activities, ongoing projects, individual reflection, reporting, single topic discussions.

Wiki
Tools: Yorkshare Wiki, Google Docs, Google Sites.
Types of activity: published output, collectively owned, resource sharing, structured templates.
Discussion board
Tools: Yorkshare Discussion Board, Google Groups.
Types of activity: discussions on many topics, structured discussions, active question and answer.

Three overarching purposes

- Simple group collaboration: use blogs or wikis.
- Creation of a revision resource: use wikis or discussion boards.
- Sequential development of ideas: use discussion boards or blogs.
4.5 Tools for learning activities

Learning technologies

This section presents the range of supported and unsupported learning technologies that have been used at the University for active student learning. If you are unsure what tool to use to meet your learning and teaching objective, contact the ELDT for advice. Tools for resource creation and delivery of teaching content are covered in Section 3 of the Handbook. A list of all supported tools is available summarising their key purpose:

- Portfolio of Tools and Services Offered by ELDT [PDF]
- Overview of Yorkshare and Google Tools [Bubbl.us Mindmap]

Links below will open in a new window and present guides, case studies and walk-throughs of regularly used learning technologies at York.

Group collaboration tools

- Yorkshare Blog
- Yorkshare Wiki
- Yorkshare Discussion Board
- Google Groups
York TEL Handbook

Synchronous collaboration

- Blackboard Collaborate
- Google Hangouts
- Skype (third-party, unsupported)
- In-class interactivity
  - TurningPoint & ResponseWare (supported)
  - Kahoot (third-party, unsupported)

Individual activity

- Yorkshare Journal
- Yorkshare Assignment Submission
- Google Sites (for portfolios)
- Google Docs/Sheets
- Yorkshare Quizzes

Content creation

- Microsoft Office
- YouTube
- Prezi (third-party, unsupported)
- Pixlr (third-party, unsupported)
- Audacity (third-party, unsupported)
Online publishing

- Google Sites
- YouTube
- Blogger
- Flickr (third-party, unsupported)
- Soundcloud (third-party, unsupported)
- SlideShare (third-party, unsupported)
4.6 Common problems

Technical issues
Use the Student Preview Mode to test how your activity works from a technical perspective before you release the activity to students. You will be able to participate in quizzes, blogs and other Yorkshare tools as if you were a student. Your student preview user account will appear in the user list for the site, so you will be able to add it to groups for testing adaptive release rules.

Check that the instructions you write use the exact terminology and wording as appears within the tool the students are being asked to use. You may find it is easier to point students towards a Yorkshare technical guide. These are kept up to date with any changes in the user interface. Search our guides database for links to guides. Often it is simply a question of students being able to find the tool or activity that you are expecting them to use. Further guidance on writing instructions is in 5.1 Instructional writing.

Guides

- [Student Preview](#) [Google Doc]

Lack of participation
If students are not participating in an online activity, you should check the following are present:

- You have specified the learning objectives and links between the online activity and face-to-face programme.
- There are clear deadlines and expectations for participation.
The online tool and online space used for the activity is appropriate for the task, is usable by students and easily accessed.

Appropriate technical advice has been linked near to where students access the tool.

Contacts are identified to deal with both instructional and technical queries.

Within your module evaluation, you should include questions that address non-participation to uncover reasons that prohibited participation or did not motivate students to engage.

Further advice on how to facilitate online activities is provided in Section 5 of the Handbook.

**Student access to Google tools**

If you have created templated Google Docs for students, you will need to set an appropriate ‘Sharing’ option in order for students to view the Google Doc. It may be easier to create a Google Group with the relevant students, rather than entering multiple email addresses into different documents for sharing.

If you are using Google Sites, you will need to share the site so that it appears in the ‘browse’ option for students to select as their template when they create a new site.

**Guides**

- [Sharing Google Docs](support.google.com]
- [Guidelines for Google Groups](UoY IT Support Office]

**Device compatibility**

Prior to creating your activity using an unsupported tool, ask your students what devices they own and are willing to use for learning activities. You may find that some students do not own smartphones or tablets, and therefore are unable to use mobile apps to complete tasks. You will need to consider alternative ways for these students to learn so that they are not at a disadvantage.

One approach would be to archive content created in external tools and post this to your Yorkshare module site, for example a PDF export, PDF print or screenshot.
YORK TEL HANDBOOK: 5. FACILITATING ONLINE ACTIVITIES

This document was last updated in December 2016 and will next be updated by August 2018. For the most up to date version of Section 5 of the York TEL Handbook visit: elearningyork.wordpress.com. Videos from the Handbook are not included in this PDF version, please see the online version.

This section provides guidance on starting, facilitating and rounding-off online activities. Advice on instructional writing for independent learning including examples is provided in 5.1. Ice-breakers and enabling different forms of student contribution are discussed in 5.2. 5.3 provides approaches to engaging students and dealing with non-participation, 5.4 provides examples of how the link between online and face-to-face has been realised through case studies. Finally, 5.5 suggests how online activities create artefacts that can support subsequent learning later in the module.

In this section
1. Instructional writing
2. Before the activity
3. During the activity
4. After the activity
5. Reflecting on the activity

Quick checklist
Use this checklist to guide your approach to facilitating online activities. If any of the items in the checklist are new to you, review the pages in this section of the Handbook.

- 5 – Facilitating online activities – Checklist [PDF]
York pedagogy

This section provides advice to support the following elements of the York Pedagogy:

- Students will understand the work they are expected to do and how that work will contribute to the achievement of the programme objectives.

- Interactions between students and staff will be designed to encourage, inform and propel students’ work.

- Students will receive the guidance, support and feedback they need to make progress, and they will understand what they can expect from the University in support of their learning.
Checklist: Facilitating online activities

Instructional writing

- Students are sign-posted towards the instructions, tool and technical guidance.
- Descriptive and information elements as separated from step-by-step instructions.
- Instructions start with a verb and each step is a single action.

Before the activity

- Groups have been established.
- An ice-breaker activity is included.

Facilitating learning

- Starter posts have been made for blog or discussion-board activities.
- Student contributions have been recognised either through online comments or in face-to-face sessions.
- You are actively monitoring student participation in the online activity.
- Non-participation is being addressed with individual students.
- The activity has a formal conclusion, with summary or link to subsequent activity.

After the activity

- Students are encouraged to revisit their contributions.
- The activity has been evaluated for both student learning and staff facilitation.

Section 5 of the York TEL Handbook supports this checklist.
5.1 Instructional writing

When writing activities for students to undertake independently, you will need to provide enough information for them to understand what is required of them whilst at the same time providing clear and specific instructions. This page looks at approaches to do this, but a good check is to ask a colleague who is not teaching on your module to read over your activity. The ELDT is also able to help with this.

Introducing an activity

The introduction to an activity is just as important as the steps a student must take to complete it. The introduction provides the context, link to learning, and hence motivation, for the activity. Students access online activities outside of the classroom, devoid of any context and may be accessing the activity without undertaking a prerequisite sequence of other activities or resources. This is particularly true in Yorkshare if you are not using adaptive release or sign-posting content, students may be selecting only certain parts of your module site to view.

The following instructional design approach adopts a 9-stage approach to activity construction. Whilst instruction design is a pedagogical approach in its own right, the principles translate well to the writing of instructions for online activities:

1. Gaining attention
2. Informing the learner of the objective
3. Stimulating recall of prerequisite learning
4. Presenting the stimulus material
5. Providing learning guidance
6. Eliciting the performance
7. Providing feedback about performance correctness
8. Assessing the performance
9. Enhancing retention and transfer

Source: Gagné et al. (1992, p.190).

Here, the activity of the student doesn’t start until step 6, with the first 5 steps presenting information and context to the activity. As an example, below is the introduction to a blog activity. The activity heading is clear and provides a succinct description of this task (step 1), with subsequent detail addressing steps 2-5 to enable the student to undertake the task. Step 6 is the student undertaking the task, this is where learning begins in this activity. Steps 7-9 would take place in the seminar.

Example of an introduction

**TASK: Weekly news blog**

This task is designed to get you thinking about how the issues we discuss in lectures are manifested in current affairs as reported through news websites and other media. You will be expected to find a news article, draw upon theory from this week’s lecture and interpret through a short blog post how that theory is evidenced by the news article.

Each week you will need to make sure you have attended the lecture or watched the recording to understand that week’s topic in order to participate. You can choose your own news website and you can use multiple sites during the module, however you may be asked to justify your choice of article in the seminar. You will need to complete your post **each week the day before your seminar** for this module. Your posts will then be used to start the seminar discussion.

[Step-by-step guidance for accessing the blog, writing the post and submitting it would go here]

Separate description from instruction

One of the challenges of writing activity instructions is making them easily understood and actionable by students. There are some golden rules to stick to:

- Provide a contextual introduction and overview first, separated from the step-by-step requirements.
- Instructions should not contain additional or conditional information. Require one action per point.
Step-by-step guides should be in a numerical list and for clarity to encourage action should start with a verb.

Supplementary information should use non-numeric bullet points, i.e. they do not need to be read or used in sequence.

Use consistent highlighting (e.g. bold) to indicate user interface text or elements (e.g. buttons, links).

**Poor example of instructions**

Once you have completed your work, submit it to the drop box below with your name and the title of your work in the filename. You should only submit in .docx format, if you need to convert it from another format we have some helpful guides available. You will get feedback on your work via the drop box.

**Good example of instructions**

You will need to complete your work by 2nd December 2015 and submit it in a Word (.docx) format to the drop box below. The filename should include:

- Your name
- Title of your work

You will receive feedback within four weeks. An announcement will be posted and you will be able to view your feedback by clicking the drop box link. If you have any problems, please contact myemail@york.ac.uk.

How to submit:

1. Click the Drop Box: First assignment link below.
2. Upload your work using the Browse button.
3. Click Submit at the bottom of the page.

Guides:

- Assignment submission
- Converting to a .docx format
5.2 Before the activity

**Directing students to the activity**

If you have the opportunity to introduce your online activity in class, show students where to find the activity during your lecture.

As discussed in 2.1 Module sites, signposting ensures students spend more time on task and less time clicking links to get to resources and activity spaces. For example, within your Yorkshare module site, if you require students to undertake tasks after the lecture, include a note within the description for your lecture slide content item directing students towards the online activity for that week. Refer to the left menu item first, then any folders and finally the exact title of the task as it appears to students.

**Group size**

You may need to break larger timetabling groups down into smaller groups for online working. As discussed by Jacques and Salmon (2007, p.161), online groups of 10-15 people are about right for ease of facilitation and encouraging participation from most of the people in the group. Smaller groups, whilst easier for the facilitator to manage, may suffer from a lack of diversity of viewpoints and set a high expectation for levels of contribution, in particular in discussion-based tasks. Larger groups are more difficult to facilitate and can be dominated by a select few or cliques of participants based on friendship groups or workplaces.

Getting a good balance between diversity of students, whilst also ensuring the group is not too large so that everyone still feels able to contribute something fresh to the discussion will help to engage students in the activity.
Ice-breaking

Whilst students may already be familiar with each other in the face-to-face space, if there is group collaboration only in the online space, you should design in an ice-breaker activity. Ice-breakers are essential for activities that:

- require students to share personal perceptions or experiences,
- require participation from all students for success, or
- have long-term investment, for example a module-long project.

These activities are part of the group forming process, establishing a common approach to contributions and rules of engagement. It also allows students to form their online identity and voice that may be different from how they would contribute in face-to-face environments. For example a shy student may find it easier to write their contributions in an online forum using the time and space to think about their responses that they wouldn’t otherwise have in the classroom environment.

Examples of ice-breaker activities

- Sharing an image that represents something about themselves.
- Posting a list of favourite hobbies/societies to find similarities amongst students.
- How would you spend £200/£1,000/£100,000?
- Posting something about your home town.
- Create a ‘skills market’ where students share what skills they are strong in and could support others with.
- Establish one rule that the group should abide by during the activity.
- Establish collectively what the group wants to achieve by participating in the activity.

Adapted from: Salmon (2005, p.117-119).

Exploring different methods of student contribution

Guidance for what is recommended to contribute needs to be provided within your instructions at the start of the activity, whether you wish to encourage a wide range of contributions and so welcome different formats, or require evidence of application of specific skills or learning.
In some cases it may be appropriate not to tie students down to text-based contributions only. For activities where students are posting personal contributions, they may feel video or audio offers a better medium for them to convey their argument. Similarly, images may also be particularly powerful in conveying ideas, either photographically, or with infographics or simply snaps of handwritten diagrams uploaded to a Yorkshare blog using the Blackboard Mobile App. Even with text-based submissions, you may suggest students include pictures, graphs, tables, specific layouts or designs.

The use of synchronous tools such as Collaborate can be used to explore higher-order learning by asking students to apply understanding to a problem during an activity. For example, presenting a case study and asking students to analyse it on-the-fly.

**Aligning contribution format to learning objectives**
Different methods of student contribution will also support forms of learning across the three domains of learning suggested by Bloom et al. (1956): cognitive (knowledge), affective (attitudinal) and psychokinetic (practical skills). As an example, provision of a video to portray how a social issue affects individual people may develop learning in the affective domain, particularly for those who watch the video. Similarly, video or photo submissions could be used to show how students have developed practical skills.

**Online interventions**

*Problem Based Learning*

*Supporting Problem Based Learning*

*Blended approaches*

*Expanding the lecture with screencasts*
Using resources to introduce topics or consolidate learning after class.

**Case studies**

*Blended Problem Based Learning*
Using technology to support group work
John Bennett, The York Law School
View Case Study

*Ensuring essential prior knowledge for lab work*
Using online activities to ensure students have the safety knowledge to enter the lab.
Dr Nigel Lowe, Chemistry
View Case Study
5.3 During the activity

This section refers mainly to text-based discussion activities, but the principles of active monitoring, engagement and feedback apply equally to other forms of online activity.

Facilitating discussion
In blog-based or online discussion activities, the role of the lecturer will be that of a facilitator. The role is not to impart knowledge but to tease out understanding from the students and encourage participation. The first step is to ensure any discussion-based activity is triggered by a starter post.

Starting discussions
If you are using a discussion board, set up a starter post for each thread of the discussion. This makes it clear to students where to post on specific topics. As an example, if you had three case studies that you wanted students to respond to, set up three separate threads, one for each case study.

The starter post would usually include the instructions for the activity, reiterating the expectations, and any relevant content students will be responding to. Whilst this may seem like duplicating content, as the starter post is in the same location as the students contributions, students are not needing to cross-reference between the discussion board and other web pages. This approach also makes it easy to save a copy of discussions to a file that includes the original context of the activity.

For a blog activity, for example a welcome blog on a preparing to study site or a current affairs blog, the first post should mimic what is expected of the students. By demonstrating through your own blog the typical response you would expect from students, this encourages participation as students are clearer about the form of contribution to make.
Approaches to commenting on posts

- Facilitating online discussions: four types of student posts [YouTube]
- Text version of ‘Four types of student posts’

In Yorkshare, you can use the comment feature on blog posts or replying to a discussion board post. This allows you to directly question students, challenging assumptions and prompting further discussion.

- Start your reply with the student name, targeting your question directly at them.
- Outline how you have interpreted their ideas, as this gives them opportunity to clarify their original post. This may be important if you are encouraging rapid participation, rather than structured essays as students may be posting only initial thoughts rather than developed understanding.
- Pose one specific question.
- Sign off with your name.

Other actions for the facilitator

Whilst the lecturer is the traditional facilitator, such actions may be devolved to others in the group. Part of the role of the facilitator will be to monitor the forms of contribution, as such you may encounter negative behaviours that will need addressing in much the same way as in class. You may wish to speak to individuals ‘offline’ or rather outside the discussion space, for example by email, rather than a public reprimand. Else, other approaches that more directly challenge a point of view from a critical, academic perspective may be appropriate.

There are positive actions that the facilitator should perform during an activity, such as:

- Providing examples.
- Restating participants’ contributions to check understanding.
- Clarifying, synthesising and summarising.
- Timekeeping.
- Directly inviting participation from individuals.
Facilitating synchronous activities
You may already be familiar with running synchronous activities in face-to-face sessions. These tend to be structured, with a clear outline of the tasks you intend to undertake during your 50 minute slot and the content you will deliver. Sessions are very rarely without any form of student interaction, in order to maintain engagement and interest. Just like a face-to-face session, online synchronous sessions (for example through Collaborate) require planning and thought in terms of how students will interact and how you will structure the session.

Tools like Collaborate offer more interactions than Skype or Google Hangouts, with more immediate interactions than asynchronous text-based discussion boards or blogs. In Collaborate you can conduct straw polls, ask students to complete templated activities using the whiteboard tools, get students to present work and use screen-sharing for software demonstrations or problem solving. Just like other tools, Collaborate needs adequate technical support to begin with (see the Opening Help Slide for Participants) and clear expectations as to when students should participate and how they should be involved in the session.

You will need to factor in time for technical de-bugging at the start of the session in case users have difficulty with their audio. It is recommended to ask students to log in at least 10 minutes before the start of the session to do the necessary checks.

Guides
  - Webinars (Collaborate)

Identifying and addressing non-participation
Non-participation may be for a number of reasons:

  - Technical difficulties or inadequate technology for access.
  - Lack of understanding of the task requirements.
  - Lack of understanding of the tool operation.
  - Lack of subject knowledge.
  - Intimidation from others (this may just be the feeling their own contribution does not bring anything to the discussion).
  - Competing agendas, for example assessed work may take higher priority than a non-assessed activity.
  - Laziness.
The facilitator actions outlined above go some of the way to addressing these concerns. You may also encounter ‘lurkers’, students who view online contributions from other students but do not actively contribute themselves. This approach may be due to a student gaining all they need from others and forming their own understanding internally, rather than contributing to the whole. This can be damaging to group morale and shared understanding, therefore students will need to be encouraged to share their ideas collaboratively rather than adopting individualistic approaches.

In some cases, it may be useful to define that contributions to online activities form part of the assessment requirements. For example in an essay, students could be required to draw upon one of their own discussion points with that of another student that helped form their understanding of a particular topic. Advice on how to reference such posts will be essential.
5.4 After the activity

Bringing meaning to outputs

Summarising
Providing a summary of an online discussion or key components of online contributions will highlight how far an individual or group has met the intended learning outcomes. The summary may highlight areas for further discussion, gaps in understanding or signal the closure of the activity in order to move onto the next. Approaches to ‘weaving and summarising’ suggested by Jacques and Salmon (2007, p.190) include:

- Thanking and praising participants who contributed.
- Highlight new takes on topics, diversity of perspectives.
- Reiterate significant learning points.
- Suggest follow-up questions or further reading.
- Link to subsequent learning activities.

Linking online outputs to face-to-face activities
The following case studies show how the online and face-to-face activities have been linked. Three approaches are shown:

- Use of online resources and assessment prior to practical work.
- Collaborative creation of an online textbook learning resource for subsequent use during revision.
- Structured online activities feeding into presentations and feedback.

**Case studies**

*Ensuring essential prior knowledge for lab work*

Use of YouTube videos and a compulsory quiz  
Dr Nigel Lowe, Chemistry  
[View Lab Prep Case Study](#)

*Supporting time on task and deeper learning*

Use of Yorkshare Wiki/Google Sites to consolidate learning  
Dr Shirley-Ann Rueschemeyer, Psychology  
[View Online Textbook Case Study](#)

*Collaborative data-driven activities*

Use of YouTube videos and a compulsory quiz  
Dr Merran Toerien, Professor Paul Drew, Sociology  
[View Data Analysis Case Study](#)
5.5 Reflecting

Reflecting on learning
As seen in the case studies in 5.4, students were asked to draw upon the resources they created or used online in subsequent activities. This may be for assessment purposes, for example using blog posts as part of a reflective practice report, or in preparation for seminars and practical activities. Prompting students to revisit and reflect on their contribution in subsequent activities again reiterates the connections between module content, activity and assessment, drivers of engagement and active learning.

Similarly to this, students may need to identify gaps in their learning prior to assessment. After undertaking online activities using resources or after group learning activities, you could provide opportunities for identifying knowledge gaps through independent study using quizzes or synchronous discussions planning assignments using Collaborate.

Evaluating the activity
In addition to reflecting on the learning of students, you should include opportunities for reflecting on your teaching practice. This may be a self reflection, use of student module feedback or peer-review. Thinking back over Sections 4 and 5, you should assess:

- The appropriateness of the tool and space for the learning objective.
- The instructions provided to students to complete the task.
- The technical support available to students.
- Your approach to facilitation and guiding students towards learning objectives.
- Whether learning outcomes were met.
You may wish to include specific questions about the learning activity in your module evaluation or explore the online interactions and student contributions.

Section 7. on evaluation methodologies goes into more detail.

Case studies

Evaluation using procedural feedback
Department of English
View Case Study

Evaluation using course and contribution statistics
Departments of Environment and Biology
View Case Study
This section provides guidance to formative and summative assessment approaches using Yorkshare and supported assessment tools. Whilst activities from Sections 4 and 5 may also form components of assessments, this section focuses on the policy, practicalities of implementing online assessment and considerations over marking and feedback.

Where your department is adopting e-assignment (online anonymous submission of summative work and return of feedback and marks via e:vision), please consult with your assessment administrators about how e-assignment has been deployed.

**In this section**

1. Digital assessment
2. Required elements and assessment administration
3. Formative assessment
   - Formative work – file submission
   - Formative work – group assignments
   - Formative work – digital visual presentations
   - Formative work – tests and adaptive release
   - Formative work – reflection and peer feedback
   - Formative work – audio/video submission
4. **Summative anonymous assessment**

5. **E-Portfolios**

6. **Online formal examinations**

7. **Marking and feedback**

8. **Forms of feedback**
   - Formative feedback (written)
   - Audio and video feedback
   - Summative feedback
   - Feedback dialogue

9. **Evaluating the assessment process**

**Quick checklist**

Use this checklist to guide your practice in assessment and feedback using learning technologies. If any of the items in the checklist are new to you, review the pages in this section of the Handbook.

- 6 – Assessment and feedback – Checklist [PDF]

**York pedagogy**

This section provides advice to support the following elements of the [York Pedagogy](#):

- Students will understand the work they are expected to do and how that work will contribute to the achievement of the programme objectives.

- Students will receive the guidance, support and feedback they need to make progress, and they will understand what they can expect from the University in support of their learning.
Checklist: Assessment and feedback

Use Section 6 of the York TEL Handbook to support your understanding of items in this checklist.

Assessment approach

☐ Identified who is responsible for the end-to-end assignment handling workflow.
☐ Have considered the form of feedback to students and the impact on the choice of tool and assignment handling workflow.
☐ Have used an appropriate tool, in particular for preserving anonymity of exam numbers.

Information for students about submission process

☐ Deadline.
☐ Format of submission, including file type.
☐ File size limit (30MB).
☐ Last file submitted prior to deadline will be accepted.

Supporting assessment completion

☐ Students directed to the assessment information and submission point.
☐ Students aware of support opportunities prior to submission.
☐ Students aware of how feedback will be delivered and subsequent opportunities for feedback dialogue.
There are several supported tools and approaches for assessment using Yorkshare or Google Apps. This section of the handbook provides advice on the use of technology in assessment, with specific approaches outlined in 6.3 Formative assessment and 6.4 Summative anonymous assessment.

**Concepts of digital assessment**

Digital assessment is the online submission of work by students, which is subsequently assessed by teaching staff with opportunities for formal feedback. Assessment provides a way for measuring understanding or attainment against learning outcomes, offering a way for both lecturers and students to judge performance. This makes assessment distinctive from student work.

Online activities, as explored in Section 4 and Section 5 form part of the student learning process and schedule of work (‘Student Work’ in the diagram below), but online assessment has digital approaches as core components of formal submission, marking, feedback or assignment-handling processes.

Consider where learning technology may enhance an assessment-feedback cycle.
For the purposes of the York TEL Handbook, formative assessment refers to tasks which students receive feedback that informs their future work in the module and summative assessment refers to the credit-bearing assignment tasks usually occurring at the end of discrete blocks of study.

**Benefits of digital assessment**

- Offers a means for submission of a wider range of content types, including websites, digital artwork and multimedia, as well as documents.
- Can speed up the process of feedback to students.
- Provides space for dialogical feedback between students and staff.
- Work can be submitted remotely and feedback can be received remotely.

**Considerations for digital assessment**

- Assignment handling workflows, including who will monitor submissions and process documents for marking.
- Methods of marking and feedback, and how feedback will be returned to students.
- Security, integrity and anonymity of submitted work.
- The format of submitted work, including file types.
- Technical support requirements for use of assessment tools.

**Embedding digital assessment in module sites**

The process of assessment submission is similar to online activity design. You will need to provide:

- An outline of the assessment task, the pedagogical rationale linking to module outcomes and specify components of the assessment.
- Process-related instructions for submission, including deadline and where to find the submission point.
- Technical guidance for correct formatting, how to use a specific tool and how to submit.
Some departments have standardised the way formal assessment is handled in all their module sites. Each module site has a specific ‘Assessment’ content area linked from the left menu. Within this content area are links to departmental processes, such as the Exceptional Circumstances for Assessment procedure, a description of the assignment, the tool for submission and a discussion board for posting assignment-related queries.
This page mainly relates to summative online assessment.

The early stages of the assessment and feedback life-cycle are dependent upon both institutional and departmental policies and processes. For summative assessments, the leads for the setting up of assignment submission points and owners of processes are often departmental programme administrators or assessment administrators. Therefore if you are unsure of how your department operates assignment submission, you should discuss with your programme administrator, particularly if you wish to explore more innovative forms of summative assessment.

Anonymity and exam numbers
Each student at the University of York has a unique exam number that they use in place of their name on assessments that should be marked anonymously. The relationship between exam number and student name is not to be known by marking staff and is usually only accessed by programme administration.

Yorkshare has a specially designed Anonymous Assignment Tool for summative work that preserves anonymity by labelling submitted file names with exam numbers and only listing completed submissions by exam number rather than student name. Crucially, you should not ask students to include their name on any work submitted via an anonymous assignment submission point. Markers and academic staff should not be able to link exam numbers to student names.

For formative work, you may wish to adopt similar processes to summative work in order that both markers and students are familiar with online submission. However, you may need to use a different tool rather than the anonymous assignment submission point to preserve the anonymity of students exam numbers.
Students should not include their exam number when submitting work to the Standard Assignment Tool as this will break the anonymity of the exam number.

**Summative online assessment**

**University policy**
The Standing Committee for Assessment has devised a policy with regards to summative online assessment and is detailed in the Guide to Assessment, Standards, Marking and Feedback. The key points for setting up assignment submissions using Yorkshare:

- An alternative method of submission, such as an administration-only access email account (not lecturer email) should be provided for when students can evidence technical difficulties with University systems.
- Deadlines to be set within normal working hours to ensure technical support is available.
- Any restrictions on file submission types should be advertised to students in advanced as part of the assignment details.
- Multiple submissions should be allowed.

**Departmental policy**
Each department may handle assignment submission processes in different ways. Therefore you will need to be familiar with the local policy, in particular if you are teaching modules in other departments than your own, the assignment processes may be specified differently.

**Factors for consideration**

- Who is responsible for setting up submission points.
- Who is responsible for setting and providing the deadline date to students.
- What is the standard guidance to be issued to students about how to submit, and are there cover sheets or other mandatory actions for students to undertake.
- Who collects work and distributes it to markers.
- How is work to be marked and what format should feedback take.
- Who returns marks and feedback to the students.
**Required elements in student guidance**

Guidance over the submission process for summative work using the Anonymous Assignment Tool is usually managed by your department assessment administrators. Lecturers should only need to provide guidance relating to the assignment task.

Guidance should be provided at each submission point. This may be a single document that students are expected to view, or a Content Item in Yorkshare. From the institutional and departmental policy, there are two types of guidance to consider: technical and process.

**Example guidance**

This example could be a Content Item above the submission point for a summative assessment. Technical guidance may also be linked, but it should be separate from the instructional guidance to ensure key points are visible to students. Details of the assignment itself are likely to be in a separate item, that would include how the assignment relates to module learning objectives, format for work and word count.

This is an anonymous assessment. Do not include your name anywhere on your submitted work. Submit your work by clicking the link **SUBMISSION POINT: Human Vision – Assignment 1 (Essay)** below.

- Work must be submitted (fully uploaded) **before the deadline**. Allow enough time for your file to upload, do not leave it until the last minute.

- The file size limit is **30MB**.

- The file must be in **Word (.docx)** format.

You may submit multiple times, but only the **last file submitted** before the deadline will be marked. Work is only accepted via the online drop box. If you encounter a technical problem close to the deadline that is due to University systems and you are unable to get technical support, you may submit work to xxxx@york.ac.uk. You must provide evidence of technical issues, for example a complete screenshot, time and steps you took, and only technical issues caused by the University will be considered.

You should ensure you are familiar with the conditions for **Exceptional Circumstances for Assessment** and regulations on **Academic Misconduct**. Work may be checked for plagiarism.

If students have to submit two files, these will need to be submitted as a single .zip file (compressed folder). Only include this guidance if applicable to your assessment. You may also want to make available a Frequently Asked Questions page for students. Again, create this as a single file and link to it from each submission area. See our **guidance for administrators** for an example.
6.3 Formative assessment

Formative assessments may take the form of submitting a piece of work, creation of an online resource or contributing to a collaborative tool. Formative assessment differs from other online activities in that there is:

- A specific deadline.
- Marking criteria.
- Mechanism for feedback.
- Direct connection with subsequent work and summative assessments.

Structuring formative assessment
Formative assessment offers a clear opportunity for feedback and enables students to learn through the process of assessment. The tool chosen should not just allow students to submit in a format appropriate for the assignment, but also enable feedback to be returned to the student in a timely manner. Formative assignments may be placed anywhere in your Yorkshare module site. Some programmes may choose to put assignment tasks within one Content Area (left menu item), see the image on the right. Others may adopt a more integrated approach, embedding the assignment within seminar tasks or lab work preparation. Either way, you will need to sign-post students towards the assignment and ensure that the following is included:

- Details of the assignment, including format for submission, deadline and how the assessment links to the module as a whole.
- A link to the tool used for submission, including specific tasks to be undertaken.
- Technical guidance on how to use the tool.
- A contact for queries.
- When and how feedback should be collected.

Approaches to formative assessment

The following examples and summary table detail approaches to formative assessment, with the tool, format of submission and mode of feedback possible.

**NOTE:** Students should not submit work containing their exam number when using any of the approaches with the tools listed below as this will jeopardise the anonymity of the submission.
Detailed examples of formative work
View the following pages for further details on how to put together different types of formative work:

1. **Written assignments and file submission**
2. **Group assignment tasks**
3. **Visual digital presentations**
4. **Tests and adaptive release**
5. **Reflection and peer feedback**
6. **Audio/video submission**

Summary of approaches

<table>
<thead>
<tr>
<th>Approach</th>
<th>Tool</th>
<th>Submission type(s)</th>
<th>Feedback type(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essay plan or formative essay/report (non-anonymous). Can be individual or group based.</td>
<td>Standard Assignment Submission (non-anonymous)</td>
<td>Word doc or other file type</td>
<td>o Online marking Assignment Submission tool o Download Word doc, comment, and re-upload to Assignment Submission tool for student o Summary comments and file attachment via Assignment Submission tool o Automated release model answer</td>
</tr>
<tr>
<td>Formative essay/report (non-anonymous)</td>
<td>Turnitin</td>
<td>Word doc</td>
<td>o Turnitin automated text-matching report o Download Word doc, comment and return back using Grade Centre or email o Automated release model answer</td>
</tr>
<tr>
<td>Self-checking knowledge / revision quiz</td>
<td>Test</td>
<td>Quiz question types include: multiple choice, text</td>
<td>o Automated marking, model answer or suggested discussion point depending on question type</td>
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<tr>
<td>York TEL Handbook</td>
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| **Public blog (external engagement)** | **Blogger** or **WordPress** | Online blog comprising any form of text, image, file | o Commenting tool (publicly visible)  
| | | | o Grade Centre column with rubric |
| **Presentation slides (students make slides available to whole class)** | **Google Drive, Wiki** (table template), **Blog** (course mode) | Upload to shared Google Drive folder; PowerPoint attachment into wiki/blog | o Existing presentation feedback mechanisms  
| | | | o Rubric-based feedback using Yorkshare  
| | | | o Peer-feedback via tool comments |
| **Portfolio** | **Google Sites** | Online website comprising any form of text, image, file | o Commenting tool within Google Sites  
| | | | o Grade Centre column with rubric |
| **Video** | **YouTube, Replay** (assignment folder), **Replay** (student presentation lecture capture) | Private upload, shared with marker | o Commenting tool within YouTube / Replay  
| | | | o Grade Centre column with rubric |
| **Audio** | **Journal, Google Drive** | Journal post with audio attached; Google Drive folder shared with marker | o Commenting tool within Journal  
| | | | o Grade Centre column with rubric |
6.3.1 File submission

There are three ways students can submit files as part of a formative assessment task. You will need to choose the submission approach that best aligns with the formative work activity and the type of feedback that will be of most use to the student.

- Yorkshare Standard Assignment Tool
- Attachment to a Yorkshare Blog or Yorkshare Journal
- Submitting Google Docs or sharing a file via Google Drive

It is not recommended that you accept work by email as there is no audit trail and it can be difficult to manage large groups.

Written assessment and file submission

The Yorkshare Standard Assignment Tool is the easiest way for students to submit any file format for formative assessment. This means students can submit zip files of project work for the marker to download, or, more commonly students can submit Word documents and PDF files which can then be marked directly in the Yorkshare VLE.

Files can also be attached to collaborative tools such as the Yorkshare Blog or Yorkshare Journal. The blog or journal entries can be assessed, with the marker providing feedback as comments on the posts. Files attached to posts can be downloaded, but cannot be re-uploaded to students.

Google Docs can be submitted for formative assessment either by the student providing access to the lecturer using the Google Drive Sharing feature, or a folder can be set up where all students copy their work (this would expose all work to all students). Formative feedback can be provided as comments on Google Documents, Sheets and Slides. Alternatively work can be uploaded as files into
Google Drive and the files or folder shared with the marker. With these submissions it’s important to note that Google Docs could be continued to be edited by the student, therefore on submission you may need to revoke the student access or create a copy which will be marked.

<table>
<thead>
<tr>
<th>Tool</th>
<th>Format of submission</th>
<th>Format of feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard Assignment Tool</strong></td>
<td>Any file. Word docx and PDF can be viewed within VLE, other formats will need to be downloaded to view. May be operated as group submission or individual student.</td>
<td>Word docx and PDF submissions can be annotated online. Summary text feedback box. Rubric (marking matrix template) within VLE. Upload a file.</td>
</tr>
<tr>
<td><strong>Blog or Journal</strong></td>
<td>Blog/Journal posts, may include images and file attachments. Blog may be individual/group based. Blog/Journal may be visible to only instructors on VLE site or all users.</td>
<td>Plain text comment. Comment will match same privacy setting as original blog/journal post.</td>
</tr>
<tr>
<td><strong>Google Drive</strong></td>
<td>Any file. Google Docs, Sheets, Slides can be viewed online. Submissions to a shared folder will be viewable by all with access. Submissions shared to a specific lecturer will be editable by both student and lecturer unless ownership transferred to lecturer.</td>
<td>Google Docs, Sheets, Slides can be commented online. Else, file downloaded and returned to student by email or re-uploaded and shared with individual student.</td>
</tr>
</tbody>
</table>

**Guides**

- Setting up a Standard, Non-Anonymous Assignment Submission Point [Google Doc]

**Further use of the Standard Assignment Tool**

If you are using the Yorkshare Standard Assignment Tool, decisions you make in the setting up of the tool will determine how you can collect and provide feedback later on. For example, you may wish to use delegated marking when you have a team of markers or use anonymous marking before de-anonymising to make feedback available.

The documents below outlines these considerations and the steps to take to use the Yorkshare Assignment Tool for formative assignments beyond the basic approach.

- Rubrics (marking matrix) [Google Doc]
- Approaches to Delegated Marking [Google Doc]
- Marking Groups with Anonymous Submission [Google Doc]
- Legacy Complete Guide: Online formative assignment submission and feedback [Google Doc]
6.3.2 Group assignments

Similar to the written assignment submission options, students can work in groups to submit work using the following tools, however configured to allow students to work collaboratively and submit on behalf of a group.

- **Yorkshare Standard Assignment Tool**
- Attachment to a **Yorkshare Blog**
- Submitting **Google Docs** via Google Drive

It is not recommended that you accept work by email as there is no audit trail and it can be difficult to manage large groups.

Group presentations can be recorded using the Replay Panopto system.

**Group assignment submission**

The **Yorkshare Standard Assignment Tool** can be configured to allow any student within a group to submit work on behalf of the group. In order for this to work, you will need to set up Groups within your Yorkshare VLE module site. Students are allocated to a VLE Group which represents their working group. If a student moves between groups, the VLE Groups would also need updating.

The **Yorkshare Blog** tool can similarly be configured based upon Groups within your Yorkshare VLE module site. Each Group has a dedicated blog. All blogs are visible by all students on the VLE site, but only students within a Group can post to their own blog space. This is useful for students to record progress during group projects, using the blog space to submit milestone outputs for the lecturer to review or group presentation slides.
Google Docs may be used in two ways:

1. The lecturer would create a Google Doc per group, then to add students as editors to their group’s document on using the Sharing settings for the Google Doc. At the point of marking, the lecturer would remove editing rights from the students, leaving viewing rights so they can access feedback comments on the document.

2. A student would create a Google Doc then add their fellow group members on using the Sharing settings for the Google Doc. At the point of submission, the ownership of the document would be transferred to the lecturer and students in the group would need to be changed from editing to viewing access.

Other Google formats can also be used in this way, such as Sheets (spreadsheets), Slides (presentations) and Sites (websites or portfolios).

Workflow for Group Standard Assignment

1. Create Groups for your Yorkshare VLE module site for each student group and check students are on the right groups.

2. Create a Standard Assignment Submission Point for Group Submission.

3. Add instructions for students to submit.

4. Access work via the Grade Centre in your Yorkshare VLE module site, marking online if appropriate or entering marks into the Grade Centre.

5. Create Announcement when marking completed to notify feedback can be collected.

6. Students directed to collect their feedback by re-entering the submission point or via My Grades (if set up).

Guides

- Creating and Using Groups in Yorkshare:
  - Using Batch Upload to Create Multiple Groups and Add Students [Google Doc]
  - Manually Creating Multiple Groups and Batch Adding Students [Google Doc]
  - Manually Adding and Removing Students to/from Groups [Google Doc]
  - Setting up Standard Assignment Submission Points for Formative Group Assignments [Google Doc]
Group presentations

The above approaches can be used by students to submit presentation slides or supporting documentation (for example reference lists). Lecturers could then use the feedback mechanisms associated with the submission tool to provide feedback on presentations.

Alternatively, Replay Lecture Capture can be used to record the presentation (slides+audio). Feedback can then be provided within the Replay Panopto system using the Discussion tool (see 6.3.6 Formative work – audio/video submission). Captures will need editing down so that each group has their own capture. The captures will need storing in a Folder configured so that only the users specifically added to the capture can view their group recording, to prevent the whole cohort viewing each others’ presentations. To add the specific students for each recording go to the Sharing settings for the capture.

If you wish to use slides+audio+camera, for example to aid students’ performance skills, P/L/001 and P/L/002 can be used with the Replay+ Camera Capture system. Alternatively, with adequate notice, we can support some rooms with webcams (see guide below) or you can use the Replay ‘At-Desk’ Recorder on a laptop with a webcam attached.

Guides

- Request a Folder [Google Form]
- Replay+ Camera Capture [Google Doc]
- Replay ‘At-Desk’ Recorder (unsupported rooms) [Google Doc]
- Replay for Group Presentations (supported rooms) [Google Doc]
6.3.3 Digital visual presentation

Alternative formats of formative work can be used to provide opportunities for students to develop their digital capabilities in communicating to an audience, visual design and technical skills with a range of tools. Some of the examples below will allow for work to be submitted as a file, for example a PDF export, whereas others will require the marker to view the work in its native format online.

One of the challenges of digital submissions is finding a way to provide feedback. Students could submit their file or use the text submission box to provide a link to their work using the Yorkshare Standard Assignment Tool. The marker can then use the summary text feedback box or an associated rubric to provide feedback to the students.

The Standard Assignment tool can be configured for individual or group feedback, depending on the project. Alternatively, students could submit Google Sites as a portfolio of resources or website. It’s worth noting that an online resource or Google Site may still be editable by the student after it has been submitted for marking. For formative work, it may be unnecessary to revoke editing access and instead allow students a greater sense of ownership over their creative resource. There are some excellent examples of student-created blogs and videos which have been developed as public-facing resources which are assessed alongside a more formal, written reflection.
Forms of digital visual presentation

The documents below show a range of media that students may use for digital visual presentation. Whilst these guides provide an overview of the possible, they do not have the context of the task, assessment criteria or learning outcome specified. These must be provided to the students in tandem with suggestions as to the type of resource to create.

- Overview of a range of digital visual presentation tools [Google Doc]
- Approaches to digital visual presentation [Google Doc]

The five approaches explored in more detail with supporting video tutorials are:

1. Narrated presentation
2. Animated or automated presentations
3. Exploratory resources
4. Mini websites
5. Infographics

Video guides
A supporting YouTube playlist provides a walk-through of the tools suggested for these approaches:

- Digital Visual Presentation [YouTube]

Case study

Lights, camera, heritage!

Bringing a subject to life with student created videos
Dr Sara Perry, Archaeology
View Case Study
6.3.4 Tests and adaptive release

Some forms of formative work may be assessed automatically, using the Test tool within the Yorkshare VLE. This tool can be used to create quizzes or other forms of question-answer task, providing students the opportunity to:

- Check their memorisation of key facts.
- Test their understanding of concepts.
- Apply new knowledge to case studies and problems (supported by a range of question types).
- Complete mathematical problems (with the calculated numeric and calculated formula question type).
- Practice writing within a structured framework (with the essay question type).

Results from online tests can also inform your teaching as you can tailor subsequent material to the knowledge gaps and misconceptions shown through students’ answers.

Types of questions

Whilst a common use of the Test tool is to create multiple-choice quizzes, these should not be restricted to just memory-recall questions. Multiple-choice questions can also be used to ask students to apply their knowledge to a case study. The advantage of using multiple-choice questions over open-text responses is the scope for automated feedback.
You can also use short-text and essay responses which allow students to write longer text-based responses to answer questions. These require manual marking. This approach may suit an activity that structures students writing, for example asking them to address specific parts of a longer piece of writing within separate questions that lead on from each other.

Question pools can be used to collate questions addressing the same learning objective, with a random selection presented to the student. For example, you may have 10 questions on Topic A and 10 questions on Topic B in a two separate question pools. When creating a Yorkshare Quiz, you could require three questions to be randomly selected from Topic A and two questions to be randomly selected from Topic B. Although the questions shown will differ on each attempt and by each student, you would still be assessing whether students achieved the same learning outcomes.

Guide to Yorkshare Quiz

- Yorkshare Quizzes
- Writing good multiple choice test questions [cft.vanderbilt.edu]
- Multiple choice questions for higher-level thinking [learningsolutionsmag.com]

Online intervention walk-through

*Online tests*

Tests can provide a means for students to self-assess their own knowledge/progress as well as provide you with an indication, both individually and as a cohort, of how well students understand the key themes of your module.

**Forms of feedback**

Feedback can be provided automatically on a per-question basis within a Yorkshare Quiz. Two pieces of feedback can be added to a question: one if the student gets the answer right, another if the student gets the answer wrong. However, feedback can not be tailored to specific answers, only whether the answer was correct or incorrect.

Feedback on Yorkshare Quiz answers may take one or more of these forms:

- Simple correct/incorrect indicator.
- Explanation of why an answer was correct/incorrect. This can help a student understand the reasoning behind the answer, as equally important for correct answers as incorrect answers.
- Direction to resources and readings which provide the correct answer.
Suggestions for further reading.

Bear in mind the purpose of your formative task and choose the form of feedback that would enable a student to take what they have learnt into subsequent activities.

**Adaptive release**

Adaptive release can be used to make available additional content on Yorkshare and subsequent learning tasks dependent upon individual students’ performance or participation. Adaptive release can be set for individual students, groups or automatically based upon:

- Date and time.
- Submission of work to a Standard Assignment.
- Posting on a Yorkshare Blog, Journal or Discussion Board (the act of posting, rather than the content of the post is the trigger for adaptive release).
- Contributing to a Yorkshare Wiki (the act of posting and/or the proportion of contribution can be used).
- Mark achieved in a Yorkshare Test/Quiz (set this to be ‘highest grade’ rather than ‘last attempt’ where students may take a quiz multiple times).

As an example, adaptive release could be used to make model answers available after a student submits a short essay. You will still need to provide a mechanism to support students in understanding the differences between the model answer and their own work. This may be a video talking through the model answer or face-to-face office hours.

**Guide to adaptive release**

- Adaptive release [help.blackboard.com]
6.3.5 Reflection and peer feedback

There are three approaches to peer assessment and peer feedback using the Yorkshare VLE: peer-assessment tool, blog/journal, adaptive release. You can also use Google Docs as an alternative for students to share resources with each other. These approaches and the pedagogical background are explored in the ELDT Lunchtime Webinar on Peer Assessment:

Slides from this webinar are also available that show the workflows for each of approaches of peer assessment and feedback:

- ELDT Webinar: Peer Assessment with Yorkshare [YouTube]
- Peer Assessment with Yorkshare and Google Docs [SlideShare]

Peer feedback may be on a submitted artefact (document, image, video) or may be as part of a reflective task. Reflective tasks may also take place between the instructor and the student, rather than as a peer assessment exercise.

Reflective learning
The Yorkshare Journal tool is designed for reflective logs and may be configured to allow students to view each other’s posts or keep their posts private to the instructor.

Reflection may be on a particular experience, perhaps through a placement activity, or may be part of a learning activity that asks students to reflect on their own understanding. Feedback on the reflective writing style and content can be posted by viewers of the Journal.
Comments can prompt students to reflect by posing questions to elaborate reflections or to ask the student to justify their position or interpretation. Within a peer assessment setting, the act of asking questions and responding to peer questioning can be a valuable learning process (Gikandi and Morrow, 2016).

**Online intervention walk-through**

*Reflective journals*

Online tools can be used to provide students with a personal space for them to write and reflect, which is invisible to other students but visible to teaching staff.

**Peer assessment and feedback**

As shown in the webinar there are three ways to run peer assessment on Yorkshare:

- Peer Assessment tool (small groups, automated, anonymous)
- Yorkshare Blog or Yorkshare Journal (large cohorts in groups, reflective, tutor-input possible)
- Adaptive Release (as part of a scaffolded activity)

Each work best for different types of task and group size. See the considerations and recommendations for peer feedback tasks as detailed in the webinar summary:

- Peer-Assessment with Yorkshare [Google Doc]

**Recommendations for peer assessment**

1. Avoid using very large numbers of peers per assessment group.
2. Do not expect student assessors to rate many individual dimensions. It is better to use selected, well understood criteria.
3. Involve your students in discussions about criteria.
4. Peer assessment can be successful in any discipline area and at any level.

*Adapted from: Falchikov and Goldfinch (2000)*
6.3.6 Audio/video submission

Audio and video submissions can be used to develop capabilities in communicating to an audience.

The Replay Panopto system can be used for students to submit audio or video files for the lecturer to view online. Assignment Folders can be added to existing Replay Folders (for example if you are using the lecture capture service) or created specifically for a module task (request a Folder). When students upload to Replay using Assignment Folders, only the student and the lecturer can view the uploaded media resource. The uploaded audio/video can later be shared with the rest of the group if required.

YouTube can also be used, particularly if students are creating resources for public viewing. See suggestions in 6.3.3 Digital visual presentations for how students can create a range of online media that can be uploaded to either Replay or YouTube.

Feedback opportunity with Replay

Whilst watching the uploaded audio/video, the lecturer can add feedback to the student using the Discussion tool within the Panopto player. The Discussion comments act as bookmarks for various points in the video, making them useful forms of feedback for practice learning linking the comment to the specific activity captured on video. As an example, a student may be performing a particular lab task or demonstrating communication skills. At the point in the video where feedback is required, the lecturer would add a comment using the Discussion tool. The student would be able to click on the feedback and would be taken to that point in the video.

See this example (click the Discussion tab on the left to view where feedback would show):
Note that as soon as you post a discussion comment it is available to all viewers. If you intend to share the video with the whole group later, you will need to make a copy to avoid the discussion posts (feedback) being shared to all students.

Guides

- Setting up Assignment Folders (if you use Lecture Capture) [Google Doc]
- Requesting a Folder [Google Form]
- File types acceptable for submission [Panopto Support]
- Using the Discussion tool in Replay Panopto [YouTube]
6.4 Anonymous assessment workflow

Wholly online summative anonymous assessment submission, with feedback delivered digitally to students using e:vision, is supported by the ELDT. This process is usually adopted at departmental level as there are implications for administrative staff, markers, assignment setters and students. The setting up of submission points is usually handled by assessment administrators and not lecturers. Consult with your programme administrative staff to find out how anonymous summative assessment is handled in your department.

A complete overview of anonymous online assignment submission for file-based submissions is available in our Key Areas section:

- **Key Area: E-assignment**

**Anonymous assignment tool**

Submission of summative work that should be marked anonymously based on exam numbers can only be submitted using the Anonymous Assignment Tool in Yorkshare. This tool replaces the file name with the students’ exam number. Therefore it is important that students do not put their name anywhere on their submitted file and instructions for use of this tool adhere to recommended guidance.

- **Help Guides and further information on the anonymous assignment tool**

Whilst submission of work is possible using this tool, additional workflows with regards distribution of work, marking and delivering feedback to students takes place outside of Yorkshare. This guidance is aimed at departmental managers and administrative staff:
Anonymous Assignment Workflow and Processes

Summative assessment spaces

Similar to the advice for formative assessments, you will want to make it as clear as possible for students to submit summative assessments. Some departments will embed a dedicated space for assessments into the module site. This provides a way to contextualise assignments with module learning objectives, connections between formative and summative assessment and opportunities for support.

The screenshot above shows how a module site assessment area includes:

- Introduction to the assessment, including breakdown of the different assignment tasks for the module and their weighting to the module mark.
- Link to a single page showing all deadlines for the programme.
Submission points, here called drop boxes, and processes for submitting work.

- Expectations for support and how feedback will be provided.

- Complete details of the assignment task.

- A discussion board for assessment-related questions.

Alternatively, you may wish to have one link on the module site left menu for the assessment task and a separate link for the assessment submission point.

**Considerations for academic staff**

Some of the key considerations for academic staff are:

- Choice of submission format and guidance to students may affect marking (see note on formats below).

- Student submissions and feedback files can be no more than 30MB in size.

- Ensure that assignment submission point clearly states assessment details to students, including deadline and file restrictions.

- Decisions of what form feedback will take. Using the Anonymous Assignment Tool you can provide:
  - Feedback sheets (blank or based on template)
  - Annotated student work

- If providing feedback through feedback sheet based on a template, this should be developed with spaces for dynamically generated content (exam numbers) and provided to assessment manager in advance of the deadline.

- If providing feedback through annotated student work then consider requiring students to include a feedback coversheet (based on a feedback template) as part of their submission to allow inclusion of overview feedback within the document. Alternatively, you can allow feedback to be added separately in a feedback form.
If providing feedback through annotated student work then consider which file types markers will be able to edit, and communicate acceptable file types to assessment manager prior to release of assignment submission point to students.

It is essential that file names of any type of feedback are not altered in any way once generated by the VLE.

Discuss local arrangements for hand off and return of feedback with programme administration.

Student submission formats
The Anonymous Assignment tool can accept a range of submission formats, however it is worth being aware of some of the problems that can occur if students submit work in a format that can then not be accessed by the marker. Where tables, charts and other layouts are included, the students should submit in PDF format to avoid any conflict from using different versions of Word or an alternative document creation program. The following document explains how submission types can affect the marking process:

- Assignment Type and Recommended Formats [Google Doc]

Anonymous assignment workflow
The following infographic presents the workflow detailed further in the Key Areas: E-Assignment part of the ELDT website, with specific reference to the role of academic staff. Decisions made early on in the workflow will have implications for processes later. Click the image to view the resource.
Text version of Anonymous Assignment Assessment Workflow:

1. Specifying assessment: Designing the assessment task, format of submission, method for marking and feedback.
2. Setting: Provision of guidance to students on assignment task.
3. Supporting: Structured means for supporting completion of assignment task.
4. Submitting: Direct students to technical and administrative support.
5. Harvesting the work: Receive work and feedback templates from programme administration, based upon initial specification for how to mark and how feedback will be issued to students.
6. Marking and feedback: Marking processes, including liaison with second markers or moderators. Running work through Turnitin, if required.
7. Returning marks and feedback: Returning work to programme administration in a format that can be sent to students.
6.5 E-portfolios

**E-portfolios** allow submissions to be created over an extended period of time, utilising a range of submission formats. They are particularly useful for structured reflective assignments, placements and projects. Portfolios may be free-form, or more commonly use a template that provides a scaffold for students to complete.

The supported approach to e-portfolios is using Google Drive.

**E-portfolio submission**

The general workflow for e-portfolio submission is:

1. Create a template for the site and share it to the University within [Google Sites](https://sites.google.com).
2. Students copy the template and create their portfolio within their own Google Site.
3. Students share the site with the lecturer (non-anonymous) or assessment administrator (anonymous).
4. On the deadline, the site ownership is transferred to the lecturer or assessment administrator and the students’ editing access is revoked.
5. Marking and feedback commences as per departmental guidance.
Online interventions

E-Portfolios

E-Portfolios
Commonly used to support evidence collection that demonstrate a student’s learning and personal / professional development.

Further guidance

- [Google Sites](#) (tool summary and case studies)
- [Getting started with e-portfolios](#) [JISC Guide]
6.6 Online formal examinations

Formal examinations held within a computer classroom can be conducted using VLE Exam. Yorkshare quizzes can be deployed allowing automated marking of multiple-choice questions and other question formats, as well as accepting short, free-text responses for manual marking. VLE Exam runs on a secure system that does not allow students to access any of their own resources or the internet whilst using the computer during the examination. It also operates outside the normal VLE, allowing highly controlled access to the question set and responses.

Using VLE Exam

VLE Exam has to be pre-arranged with the ELDT, as you will need access to the secure VLE Exam system and arrange for IT and the ELDT to provide support on examination day.

The next task will be the development of the question set. See the Yorkshare Quiz page for further advice on the types of questions that can be developed. VLE Exam is not intended for long text answers, and is best suited to multiple-choice questions, matching and short answers. Question pools allow for a random selection of questions to be issued to students. For example, you could create a pool of questions for one sub-topic, another pool for the next topic, etc. The exam would then draw a set number of questions from each pool.

Summary of key dates when planning a VLE Exam

<table>
<thead>
<tr>
<th>Timing</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before you begin teaching</td>
<td>Consult with the ELDT on examination planning and scope for formative and summative computer-based exams using VLE Exam. Book the PC classrooms that you will be using for the formative / summative exams.</td>
</tr>
<tr>
<td>At least 8 weeks before the summative exam</td>
<td>Confirm the date and location of the exam (PC classrooms that will be used) with IT Services and ELDT.</td>
</tr>
<tr>
<td>At least 4 weeks before the summative exam</td>
<td>Share the question-set with the ELDT and outline any special arrangements that will be required by individual students.</td>
</tr>
<tr>
<td>At least 1 week before the summative exam</td>
<td>Confirm students who will be taking the exam, sharing a spreadsheet of names / Exam IDs with the ELDT.</td>
</tr>
</tbody>
</table>

Further information

- Checklist of responsibilities for VLE Exam [PDF]
- Overview of the VLE Exam service [PDF]
- Item analysis techniques for reviewing question items [ELDT Blog]
For more information and consultation over examination plans, please contact the E-Learning Development Team at vle-support@york.ac.uk

Case study

VLE Exam

VLE Exam for summative assessment.
Dr Zoey Handley, Education

View VLE Exam Case Study
6.7 Marking work digitally

Approaches to marking

Paper or digital, summary or annotated
For assignment tasks where students submit a file, it is possible to mark the work both digitally or in printed form. If marking in digital form, then you will need to specify the file format acceptable for submission well in advance. If marking on paper, you will need to consider how your feedback will be returned to students. You may, for example, mark on paper but provide only summary feedback using a digital template. You can still point out key parts to students by referencing page numbers and paragraphs. If you wish to provide hand-written annotations back to students digitally, you could use the scan to email functionality on campus printers, however this is very time consuming and prone to error sending the work back to students. Digital annotation may be a more practical approach if you intend to highlight or comment on work and for students to see it. Further advice is in 6.8 Forms of feedback.

Feedback templates
The Anonymous Assignment Tool supports the creation of feedback templates with exam numbers automatically populated into placeholder fields. This allows reliable creation of feedback forms that can be completed digitally, whilst the marking (viewing) of scripts could take place via a medium of your choice. Templates may just provide spaces for open comments based on set criteria, or could include a marking matrix (rubric) against which the assignment is assessed.

Marking with others

Yorkshare Assignment Tool
The Yorkshare Standard Assignment Tool can be used to allocate work based on Yorkshare groups to markers. Whilst marking must take place online in this case, this offers a quick way to distribute work to multiple markers. Yorkshare groups must be set up in the module site for this to work.
Markers would then use Smart Views in the Grade Centre to filter submissions by their group. If using anonymous marking, separate submission points for each group must be created.

Another approach is to use what is called Delegated Grading. This is only for non-anonymous marking. Delegated Grading can be used with users added onto the VLE site with the ‘Marker’ role. Markers grade the submitted work which is then ‘reconciled’ by the lead marker (instructor) on the VLE site before marks are released to students. This workflow works for PGWT marking groups.

Guides

- Setting up groups [Google Doc]
- Smart Views [help.blackboard.com]
- Delegated grading [Google Doc]

Anonymous Assignment Submission and other forms of assessment

There are no supported online systems that will assist with automatic distribution of marking to markers based on groups. Neither are there tools available to harmonise double blind marking. These processes have to operate offline, as such establishing a consistent departmental workflow for summative online assessment makes marking of multiple assessments easier to manage. Departments may use a series of folders on Google Drive or a network drive to distribute and collect back marking.

Health and safety

A common concern for digital marking relates to eye-strain or body positioning whilst marking using a monitor or mobile device. You should follow Display-Screen Equipment health and safety guidance, for example taking regular breaks and ensuring correct alignment of equipment. The University provides a self-assessment online tutorial about good DSE practice and offers DSE assessments for anyone concerned about prolonged use of computing devices:

- Health and Safety – Display Screen Equipment Assessments

There are also suggestions on how to focus attention when reading digital documents on the Reading on Screen site:

- Reading on Screen – Visual aids
6.8 Forms of feedback

The mode of feedback will depend upon how the feedback should be taken forward into subsequent work.

The following pages describe the different forms of feedback that can be delivered using supported technologies. In addition to the feedback types covered here, you may also wish to consider giving feedback during face-to-face teaching sessions or supervision, including remote supervision. As part of the instructions of an assessment task, ensure that you specify when feedback will be delivered and in what form.

- Formative feedback (written)
- Audio and video feedback
- Summative feedback
- Feedback dialogue

Issuing feedback to students is only one half of the learning process, so you should also consider how students will use and interpret the feedback. You may wish to consider closing the feedback loop with office hours, an online webinar or subsequent learning activity such as a learning log which requires students to reflect on their feedback and how they will apply it to future work.

Principles of good feedback

Our blog post on Feedback Tools and Techniques points out the value of technology to support learning through assessment feedback. Some of the key principles for effective feedback are:

1. Clarify what good performance is (goals, criteria, standards).
2. Deliver high quality feedback that helps learners self-correct.
3. Provide opportunities to act on feedback.

4. Encourage interaction or dialogue.

5. Develop self assessment and reflection.

6. Provide information that teachers can use to help shape their teaching.

7. Encourage positive motivational beliefs and self esteem.

Adapted from the REAP project on assessment and feedback.

Students in the feedback loop

Case study

Designing in feedback

Structuring activities to help internalise students’ change in thinking required for progression

Cathy Dantec, Language and Linguistic Science

View Case Study
6.8.1 Formative feedback

What form of feedback you wish to provide on written work will influence your choice of assignment submission tool. In particular, some tools only allow for ‘summary’ feedback whereas others will permit ‘in-line’ feedback either through commenting or inserting text into the students’ work.

Written feedback

Standard assignment submission
The Standard Assignment Submission point in Yorkshare has four forms of feedback available:

- Annotated work online using the Crocodoc feature.
- Summary feedback.
- Rubrics (marking matrix).
- Uploading a file attachment, for example annotated work or a video file.

See all guides relating to Standard Assignment Submission for further details.

Online interventions

Formative online feedback
On-line tools can be especially effective for both actively and/or passively providing formative feedback on a student’s self-study activities.
Yorkshare collaborative tools
For Yorkshare Blogs and Wikis, use the comment tool beneath the students’ posts. For Yorkshare Discussion Boards, you will be able to reply directly to individual posts.

With Yorkshare Wikis you can also edit the wiki page itself, inserting in-line comments using a different colour. You should also prefix your insertions to make it clear where you have edited the page.

You can link to video feedback by providing a web link in discussion board posts. Comments on Blogs and Wikis will not convert a URL to a link, however students could copy and paste into their browser.

Grade Centre columns
Where an assignment is not digitally submitted, for example a presentation or assessed practical, you can still deliver feedback digitally through Yorkshare. The Grade Centre can be used to issue feedback to students by creating a column for an off-line assignment. You can provide feedback as a summary text entry, mark, attached file or using a rubric (marking matrix). Students collect their feedback through the My Grades tool (this needs to be enabled within your Yorkshare module site first).

Google Sites
These can be marked using the commenting feature, as long as this has been enabled on each page on the Google Site. Else, if the marker is an editor of the site they can insert in-line feedback on each page. You should prefix your insertions and use a different colour to make it clear where you have edited the page.

Alternatively, you can treat this as an off-line assessment, using a marking rubric and the Grade Centre.

Guides
- Grade Centre – Marking procedural work in the VLE [PDF]
- Inline Assignment Grading [help.blackboard.com]
- Rubrics (marking matrix) [Google Doc]
6.8.2 Audio and video feedback

Audio feedback
Audio feedback can be recorded using an MP3 recorder or a sound recording program on your computer. You can edit recordings down if necessary using Audacity, a free program available on campus computers or if uploading to Replay you can use the online editor. Files can then be issued to students by email, Replay Panopto, Google Drive or using a Grade Centre column.

Video and screencast feedback
Video feedback is best done using the Replay ‘At-Desk’ Recorder. This may either be a ‘talking head’ video, pointing your webcam at a printed version of a document or a screencast (recording of your computer screen). Screencasting feedback allows you record your computer screen and a microphone to provide a narrated walk-through of the marked document.

Upload your recording into your personal Replay folder to ensure no students have access. Then, add the students username onto the video via the Sharing settings so they can access via the Replay Panopto website.

Case studies
Screencast commentary for formative feedback
Recording the screen during marking
Dr Bill Soden, Education
View Case Study

Guides

- Screencast feedback using Replay [ELDT Blog]
Keele University have produced summary guides for creating multimedia feedback.

- **Audio Feedback** [PDF]
- **Screen-casting Feedback** [PDF]

If you have disabled students, you will need to ensure the form of feedback is accessible to them. Audio and video feedback may need to be provided in a text-based format instead.
6.8.3 Summative feedback

When using the anonymous assignment submission tool for summative work (where students submit using exam numbers), the type of feedback is dependent on the file format students submit with.

- **Assignment type and assessment format** [Google Doc]

**Annotated student work using Word or PDF**

Applies to .docx, PDF and other file types that can be annotated and returned to students. The process involves an administrator downloading the work and distributing it to markers. Markers then annotate the work and send it back to the administrator. The administrator then sends the work back to students via e:vision.

**Annotated student work using Google Drive**

Applies only to .docx. This form of marking and feedback is similar to the above, except that instead of using Word, downloaded submissions are then distributed to markers using Google Drive. The files are opened using Google Drive, marked and annotated after conversion to Google Docs. The assessment administrator then downloads the Google Docs as .docx files for sending back to students. This process is useful for marking using tablets and other devices that have the Google Docs app.

Files are sometimes renamed when downloading from Google Drive or opening on an iPad. Tilde (~) and hash (#) characters can sometimes been changed for underscores (_) and this will cause problems when using the automated mechanism for sending feedback to students. Contact the ELDT for advice if you note files are renamed vle-support@york.ac.uk.

**Feedback forms**

The Anonymous Assignment tool can populate copies of a feedback template with the examination numbers for students on a module and naming the files in an appropriate format for returning to students via e:vision. This is a useful way to create anonymous marking matrices for both online and offline assessments and doesn’t require the student to attach a form onto their work.

**Guides**

- Adding comments to Work Docs [Microsoft Help]
- Adding comments to Google Docs [Google Help]
- Annotation in PDF using Adobe Reader [Adobe Help]
- Creating Feedback Comment Banks in Word [GCU]
6.8.4 Feedback dialogue

You may decide to choose an assessment tool that supports feedback dialogue, allowing students to respond to the feedback either directly to the lecturer or as a reflective statement. Tools that are equipped with commenting are the obvious candidates, however you will not receive email alerts when comments are added. The way comments are used must be clearly established with the students if you intend to use the comment feature for dialogue, for example specifying that comments will only be reviewed once on a specific date.

Establishing feedback activities

For longer-term dialogue, the Yorkshare Journal tool (a private blog space) could be created for the student and supervisor to discuss the students’ work across modules. Again, there is a disadvantage that email alerts are not possible, therefore structuring this activity around the face-to-face supervision may be most useful.

For synchronous discussion, you can use Collaborate to view documents on each others’ screens. This may be particularly useful in group situations, reviewing feedback from a presentation for example students could get together remotely and consider how future work in the group could be developed.
6.9 Evaluating the assessment process

Timing and scope
Most module evaluations are taken after teaching has concluded, but before the assessment. This means that there is little to no opportunity for students to provide feedback on the form of assessment itself. If you are using non-standard assessments, you could collect evaluation data on:

- Students’ interpretation of the assessment task.
- Pedagogic and technical guidance available.
- Value of feedback and the means through which feedback was delivered.

See Section 7 for further details on evaluation approaches.

Evaluating feedback
The use of learning technologies, particularly with formative assessment, allows for greater dialogue over feedback on student work. Helping students to interpret and take feedback forward in subsequent work supports a developmental approach to studying. Discussing with students how they interpreted feedback will also help your approach to writing feedback, identifying where rubrics could be clearer or link more closely to learning objectives for the module.
YORK TEL HANDBOOK: 7. EVALUATION AND DEVELOPMENT

This document was last updated in December 2016 and will next be updated by August 2018. For the most up to date version of Section 7 of the York TEL Handbook visit: elearningyork.wordpress.com. Videos from the Handbook are not included in this PDF version, please see the online version.

This section of the handbook details the role of evaluation in development of technology-enhanced learning and evaluation methods to use. This section concludes by encouraging you to share your evaluation as a case study with the wider York teaching community or more formally as a conference presentation or journal article.

In this section

1. Reasons to evaluate technology-enhanced learning
2. Evaluating your use of technology-enhanced learning
3. Evaluation methods
   - Questionnaires and surveys
   - Usage statistics
   - Informal and interim feedback
   - Procedural and reflective feedback
   - Activity logs and content analysis
   - Focus groups
   - Diagnostics and observation
4. Planning for evaluation
5. Interpreting evaluation data
6. Evaluation as a professional development

Quick checklist
Use this checklist to guide your practice in evaluation and development. If any of the items in the checklist are new to you, review the pages in this section of the Handbook.

- 7 – Evaluation and development – Checklist [PDF]

York pedagogy
This section provides advice to support the following elements of the York Pedagogy:

- We will apply the best evidence on effective teaching and learning to define our institution’s learning culture and set expectations for our programmes
Checklist: Evaluation and development

Evaluation planning
☐ You have a clear rationale for evaluation.
☐ You have identified the general approach to evaluation.
☐ You have selected methods and tools for evaluation.

Developing a plan
☐ A clear written aim for the evaluation.
☐ Key questions addressing evaluation themes.
☐ Stakeholders have been identified.
☐ An appropriate timescale for evaluation, bearing in mind other restrictions on your stakeholders.
☐ Ethical approval has been obtained if using evaluation data beyond your course or professional development.

Interpreting data
☐ You have critically appraised and identified gaps in the evaluation data.

Course development
☐ You have collected evaluation data that will inform course development.
☐ You have identified strengths and weaknesses of your learning design.
☐ You have identified strengths and weaknesses of your learning resources.
☐ You have identified strengths and weaknesses of your teaching approach.

Professional development
☐ You have sought peer-review of your work or discussed your evaluation with a colleague.
☐ Where you have gaps in your knowledge or skills using TEL, you have sought advice from the ELDT.
☐ You have mapped your practice to a framework, such as the UK-PSF, CMALT or 3E Framework.

Section 7 of the York TEL Handbook supports this checklist.
7.1 Reasons to evaluate TEL

Learning design
Whilst the use of Yorkshare to host teaching resources is well established, the targeted use of learning technologies to support active student learning is still an emerging practice.

Blending class-based and online learning through the effective use of technology is a challenging task, requiring reflection on the learning design, instructional methods and support provision for learners. From an instructional perspective, it may involve a major shift from existing practices such as the simple release of lecture notes online to embrace more advanced learning and teaching designs such as embedding interactive tasks, self-directed and group activities. To get this right will involve iterative planning and reflection on action to ensure that the course design and delivery methods match the intended learning objectives.

Student factors
The student population is constantly changing. Each cohort will have different expectations of how courses should be delivered, based on their prior educational experiences, the pervasiveness of the latest technologies and their ownership of digital devices.

Whilst we do not design technology-enhanced learning to pander to student expectations, there is a need to factor in how students learn informally with technologies when designing their formal learning.

Thinking holistically
Existing evaluation practices may not be sufficient to track these developments. Typically modules are evaluated by an end-of-course questionnaire, which may or may not be adapted to include questions on e-learning components of the module. Introducing the odd question within a standard
form will not provide a detailed level of feedback on the effectiveness of the use of learning technology, addressing the degree to which the class-based and online components are aligned; nor will looking at the assessment scores at the end of the teaching and assessment cycle reveal whether the use of technology has supported or enhanced student learning.

We therefore need to consider other methods which build on existing evaluation practices and offer an holistic view of the learning methods employed in the course design.
7.2 Evaluating your use of TEL

Evaluation should not be an afterthought but a feature of your course planning, embedded within the overall design of the course. It may even involve the active participation of students (e.g. by asking students to complete learning logs or reflective diaries over the duration of the course). If you are planning to involve students in evaluation activities, they will need to be informed at the beginning of the course about their role and contribution to the evaluation effort.

**Defining the purpose**
The first step is to define the **purpose** for the evaluation:

- **Diagnostic (pre-course):** is the purpose to learn more about our students and their reception to blended study methods? This may touch on their prior experience in using learning technologies to support study activities.
- **Formative (during the course):** to enable us to reflect on the impact of the online learning activities during the delivery of the course – helping us to make adjustments to instructional methods influencing both online and class-based activities?
- **Summative (post course):** to help us to review the impact of the course design and delivery methods on student learning, with a view to transferring lessons learned to future courses?

**Focusing the evaluation**
We then need to define our **focus** for the evaluation and key questions. What aspect of the blended experience do we want to explore? For example:
o Appropriateness of the technology in supporting study activity (targeted learning) – outcomes, engagement levels & interaction patterns.

o Suitability of the online content resources & activities in supporting students and promoting active learning.

o Levels of student engagement in online activity, relating to discourse and interaction patterns.

o Clarity of instructions and levels of support (administrative, technical, pedagogic) to help students tackle the targeted learning activities.

We may also wish to review the interrelationship between online and face-to-face elements of the course i.e.:

o The degree to which the online and class-based study methods complement each other – reception of the study methods & degree to which they are viewed by students as interrelated.

o The pedagogical effectiveness of the course design in helping learners to reach the targeted learning outcomes.

As a general rule, the evaluation focus should be aligned with the targeted learning outcomes for the course – what you set out to achieve with the initial design of the course – and consequently linked to the overarching course objectives.

Peer-evaluation
The case study in the video below is an example of peer-evaluation. The evaluation was negotiated to look at specific aspects of online teaching, with an open discussion to support professional development in those areas.

● Peer Observation Programme [YouTube]
7.3 Evaluation methods

The choice of evaluation methods will be influenced by the purpose and focus that you have identified for the evaluation, answering what is worth evaluating and why?

**Approaches**

For example, an *outcome based* approach might focus on the measurement of online learning behaviour to assess whether students have met the targeted learning objectives. This might involve measuring levels of engagement (time on task or number of visits to a Yorkshare module site) and patterns of use of learning technologies. It could also measure the effectiveness of the learning by assessing levels of understanding through tests formats.

An *interpretive* study focusing on the reception of study methods might take a different approach, examining outcomes through the eyes of those involved in the delivery of the course (students, lecturers, seminar tutors), establishing meaning based on their perceptions of the learning experience. This could be achieved by inviting students to recount their experiences of learning in their own words, elaborating on the context of their learning and the link between formal and informal study methods. Attention would be drawn to affective and attitudinal variables (learners’ feelings and levels of motivation towards the blended design), and the role of prior knowledge and experience of blended learning in influencing their reception of the study methods.

In *case study* evaluation these approaches are combined to generate a multi-dimensional or rich picture of the learning that has taken place. For example, qualitative techniques are used to capture data on students’ perceptions and feelings on how the course has unfolded; quantitative techniques generate data on what students know and what they do.

**A combination of quantitative and qualitative approaches will offer depth to your evaluation.**
Methods and tools
The following pages open in a new window. They provide a description of the method with examples of where the approach has been used by module leaders.

- Questionnaires and surveys
- Usage statistics
- Informal and interim feedback
- Procedural and reflective feedback
- Activity logs and content analysis
- Focus groups
- Diagnostics and observation
7.3.1 Questionnaires and surveys

Questionnaires and surveys
Online or paper based surveys used to capture student responses for data collection and analysis.

Pre-course (entry) and post-course (exit) surveys may be combined to measure students’ attitudes to study methods and learning activities. An entry survey may be included as part of the course induction activities before or during the first contact session, helping to capture the learning profile of the cohort (e.g. perceived levels of IT literacy; prior experience of blended study methods) and expectations towards the study methods. The exit survey may be issued at the end of the teaching cycle but before the final assessment, inviting students to review their attitudes to blended methods in the light of their learning experience. Consequently the results from the two instruments can be compared to measure the impact of the study methods. There are three ways to collect survey data: Yorkshare Survey tool, Google Forms and Qualtrics (further information provided by IT Services).

Example

- Example generic end-of-module survey [PDF]

This form would be supplemented with additional questions about specific learning and teaching interventions that are of interest for evaluation. The basic form however is very short but still provides information to the module lead about how to improve the module.

Guides

- Designing questionnaires and surveys [PDF]
- Likert items and scales [PDF] [UK Data Service]

Case studies

The evaluation case study below focused on the reception of online tutoring and discussion methods – enabling comparison of attitudes between the start and finish of the course as represented through responses to a 5-point Likert scale.
Note the presentation of the entry and exit scores together for each question item, which can reveal shifts in attitudes based on the learning experience that students have encountered. Open questions may also be introduced in the exit survey to invite participants to elaborate on the reasons behind their responses.

Coronary Heart Disease Prevention

Example of a range of evaluation methods
Ros Brownlow, Health Sciences
View Case Study [PDF]

A further case study below from Social Policy and Social Work compares the use of paper-based and online evaluation forms, with reference to Google Forms and Qualtrics.

Module Evaluation with Online Tools

A comparison of paper-based and online module evaluation tools.
View Case Study
7.3.2 Usage statistics

Site statistics
Site statistics (course statistics) are logged automatically in Yorkshare and can give a crude picture of student engagement in terms of log-in frequencies and the number of visits to specific areas of a course, which may focus on content areas (folders or items) and tools that you have set up within your module site. Tracking can also be enabled for specific content items to observe how widely items are accessed by students.

The statistics will reveal general patterns of student engagement and activity within the module site, how often students visited the site and the range of resources that they have used. However, statistics are less useful in providing information on levels of engagement with these resources, for example time on task in completing study activities.

Case study: Environment and Health (Environment)
Course statistics were used to track student activity for the VLE site for this third year undergraduate module. Student log-in patterns were varied across the module, with peaks of high activity recorded at the time of practical sessions and deadlines for assessed coursework. 33% of hits occurred on Mondays – the day before the weekly lecture. The statistics tracked student access to content areas within the site, providing an insight into usage patterns. The group work area attracted the most hits, with 76% of the total (9347 hits). The practical area accounted for 14.5% of hits (1781 hits) and the course materials for 5% (630 hits).

Interaction with content
Structured VLE site with online resources as significant component to learning on the module
Pierre Delmelle, Environment
View Environment & Health Case Study [PDF]

Tool statistics
Contribution statistics may also be generated by the learning tools themselves. For example, the number of discussion forum posts made by an individual, which might be compared with the total number of visits to the forum or views of other posts to judge the overall level of student engagement with a discussion activity.

Contribution statistics are also available in wiki tools, focusing on the number of edits made and percentage breakdown of individual contributions to a group wiki report. Again these statistics need to be treated with caution, as they will not reflect the complete picture of student learning, i.e. what takes place outside the formal learning environment. Do not ignore the informal learning processes such as drafting and discussion which may be taking place using alternative (student-controlled) tools, if the wiki is viewed by students as the formal publishing location for the activity.
Use Case: Evolutionary Ecology (Biology)

The screenshot above shows an undergraduate Biology module where contribution statistics have been generated through the use of a group wiki tool presenting the number of page saves (frequency and percentage of saves by the individual for the group report as a whole), and the total number of lines that have been modified by the individual in the report. These statistics can give a rough indication of an individual’s contribution, although they will not reflect the interaction and informal learning that shapes the group’s use of this tool. The quality of the individual’s learning contribution is therefore harder to assess, although there is the page history option to track the changes that have been made to the report.

The extract from the evaluation report below shows that some conclusions can be drawn from the data on the nature of group activity, focusing on the distribution of roles within the group.

We can gather from the data whether the final editing of reports has been a shared task between group members or one assigned to a particular individual. We may need other evidence though to judge the extent of the contributions made by individuals to the drafting of the report and research of findings, if these activities have not been captured through the use of the wiki.

Evolutionary Ecology

Example of analysis of student contribution to a collaborative task
Dr Peter Mayhew, Biology

View Evolutionary Ecology Case Study [PDF]
7.3.3 Informal and interim feedback

Informal feedback
Use the class-based sessions of a blended course to make informal checks on student learning, reserving some time at the beginning or end of a class session to discuss progress and explore aspects of the online tasks to acknowledge online learning that is taking place. A simple alternative is to ‘drop in’ on virtual study tasks, to get a feel for how a discussion or collaborative task is unfolding.

Interim feedback
Selected questions or surveys can be included mid-way through a module, again to help you judge the reception and progress of learning activities.

Interim feedback taken at the end of the first term on a long-thing module will also enable adjustments to be made for the subsequent term.
7.3.4 Procedural and reflective feedback

Procedural feedback
Procedural feedback offers an opportunity to assess engagement levels with the learning methods as the course unfolds. This will relate to the design of the study activities that you are asking students to perform. For example, one element of the activity design may be for students to complete short progress reports at milestones during the course, which invite them to reflect on their engagement with the task & tools and their performance to date. This type of feedback will benefit student learning by supporting reflection on action and will provide an evaluation trail for the performance of the online tasks through the production of individual or group reports on study progress.

Case study: History and Theory of Criticism (English)
For this third year undergraduate module, in preparation for the weekly seminar students were requested to make blog entries, each submitting an individual report on the reading that they had completed for the week, articulating a view on a series of key texts which they would discuss in the seminar. The instructor reviewed the blog entries prior to the seminar as a way of understanding the range of reading that had been undertaken during the week, helping her to manage the seminar in a more effective way:

It really helped me to understand what they had gotten from the material (literature). I knew if the responses concentrated on a couple of texts – I knew what they liked and understood and it would help me prepare for the seminar. It was a form of feedback – a feedback loop to the instructor. If they didn’t get something, I could plan and revise what to do with the seminar.

Jane Elliott, course instructor

Reflective feedback
Reflective tools where students are actively contributing to an activity can be used in evaluations. Course participants may be invited to reflect on their learning experiences as the course unfolds through personal learning journals, reflective diaries (video or blog) or through completion of self-assessment pro formas, which help students to assess their own progress with the learning tasks. The evidence can provide an insight into their approach to learning tasks, as well as flagging up engagement levels and progress to the course instructor.
Use case: Social Aspects of Science (Biology)
In this undergraduate module students worked on a small research project in groups and presented their findings on a current issue in science. To improve the working process each group was provided with a virtual ‘space’ to facilitate sharing and to record their interactions – and they were expected to complete a group diary summing up their progress in tackling the research task.

I thought that the VLE was very useful for group work and enhanced the ability of the group to function and made their activities more transparent to me.

The diaries kept as a record of group meetings were more organised and more detailed than they had been in previous years. In addition, a few of them had several contributors whereas previous paper based diaries tended to be kept by one nominated member. It seemed to me that the diary was owned more by the group than an individual which I liked.

Emma Rand, course instructor

Social Aspects of Science
Example of online tools to record group progress
Emma Rand, Biology
View Social Aspects of Science Case Study [PDF]
7.3.5 Activity logs and content analysis

Activity and content analysis

You can use participation in asynchronous communication and publishing tools (blogs, discussion boards, Google Sites) and synchronous tools (text-based chat boxes or Collaborate recordings). Chat logs may well need to be enabled and saved at the end of the session to ensure that the record is retained for review.

By analysing the contributions made by participants to a discussion or collaborative activity, we can build up a picture of activity online, touching on levels and categories of participation. This may highlight the range of learning that is taking place on line, from evidence gathering to critical reflection on data output.

Case study: Evolutionary Ecology (Biology)

Returning again to this Biology module, the table displays the results of a content analysis of blog posts. The blog was used by groups to collate research in preparation for the drafting of their wiki reports. The categories of contributions in the table were inductively derived from the blog posts for each group through an initial analysis of the content of the postings. This led to the definition of a series of categories of communication, ranging from organisation and management of research tasks to examples of deeper learning – providing feedback on the report. The analysis helped the instructor to grasp the nature of the group dynamics – how students worked and the roles that they had adopted in the preparation of their reports.

Evolutionary Ecology

Example of analysis of student contribution to a collaborative task
Dr Peter Mayhew, Biology

View Evolutionary Ecology Case Study [PDF]
Case study: LLM programme (Law)

This screenshot shows another example of content analysis—this time taken from a postgraduate Law module.

This analysis was based on blog postings for a problem based learning activity, but employed an external framework—Fox and MacKeogh’s 16 categories of cognitive thinking to interpret student contributions—using a blog post as a unit of analysis. This framework was chosen as it mapped closely to the stated objectives for the group task that students were asked to perform in addressing a range of evidence collection and cognitive skills—again helpful in tracking the development of the learning and its relationship to the targeted outcomes for this activity.
7.3.6 Focus groups

Focus groups
Focus groups may be conducted both during and after the completion of a blended module in order to learn more about the way a cohort has engaged with the course design. Feedback may provide insights into students’ study approaches, learning experiences, and attitudes towards the online tasks. Focus groups are a good way of clarifying and eliciting more detailed answers from students on the issues that may have been raised in the end of course survey. Unstructured questioning often works best, enabling students to direct the discussion (rather than be led by the questioner’s agenda) in reflecting on their learning experiences. They can also be used to probe the experiences of the tutorial team in supporting student learning.

Guides

- Running a Successful Focus Group on Your Course [PDF]

Case study: New Media & Society (Sociology)
For this second year undergraduate module, a focus group was used to probe reasons why the cohort did not fully engage in a blogging activity, by recording their observations within a course blog and commenting on the entries of their peers. The activity logs had built up a picture of uneven student engagement across the cohort, but did not reveal the reasons why this had happened. The focus group offered the following insights into student behaviour:

People did not want to offend. On the web you can be anonymous and be prepared to take things on a bit, but it is different for a course, although the seminars can be heated, but none of that was transferred on-line.

It is a cultural thing. If you are into blogging, then fine. But if you are not but are told to do it, it is a major difference. It was new to me. The first I heard of it was when the course started.

Evolutionary Ecology
Example of use of focus groups
Dr Peter Mayhew, Biology
View Evolutionary Ecology Case Study [PDF]

Case study: Evolutionary Ecology (Biology)
In this module, some groups opted to use their blog space to collect evidence for the reports that they were preparing, other groups did not use the tools which were provided for them, and their formative learning activities were therefore not visible to the instructor. The focus group aimed to probe the organisation of their learning outside the formal learning space (VLE), to explore how they
worked as a group. The focus group findings revealed that some groups were using Facebook to manage their research tasks, taking advantage of the email alert function so that they were aware when new entries had been made by group members.

*New Media & Society*

Example of exploration of informal learning
Brian Loader, Sociology
[View New Media and Society Case Study](#) [PDF]
7.3.7 Diagnostics and observation

Diagnostic tasks
Diagnostic tasks which students complete before the course has started, revealing their prior knowledge skills, aptitude and reception of the learning task. The task can be repeated at the end of the course to demonstrate how their learning has progressed and whether their skills and views have changed. This will provide some insight into the effectiveness of the learning design and study methods.

Observation
Students may also be encouraged to record themselves using web or screen cams, demonstrating how they are completing online tasks. This will provide direct evidence regarding the way the students tackle an online activity, their approach and thought process as well as their reception of the study task and provide valuable feedback on the design of the study task. Observation may offer insights into the clarity of instructions, task objectives and usability of the tools and resources.
7.4 Planning for evaluation

With a clear view of the purpose of the evaluation and the key research questions and evaluation methods or tools that you will employ, the next step is to proceed with the development of an evaluation plan. Developing a plan will help you to consider how the evaluation methods will be applied across the life cycle of the course, identifying key actions and the stakeholders who will be involved, as well as the timing for the activities that will take place. It will help to draw together the threads of your thinking into an action plan.

Developing a plan
In developing your plan you will need to note down:

- **The purpose and focus of evaluation**: aims and focus of the evaluation, which should link back to the overall course objectives and ideally be mapped against them. The rationale for the evaluation should be clearly stated, as this may need to be communicated to stakeholders.

- **Key questions**: derived from the evaluation themes that you are seeking to explore (e.g. your focus may be on activity design – with evaluation questions directed to the sequencing of the online tasks within the course and their relationship to the class-based learning over the duration of the course).

- **Stakeholders**: identifying the groups of people that will provide feedback (e.g. students; tutorial team; administrators) in support of the evaluation, and the people who will manage
the evaluation process (e.g. instructor; tutorial team; independent researcher; VLE team) and lead on the evaluation tasks and be responsible for collecting data. Do not underestimate the challenges of getting students to engage in the evaluation process. Survey fatigue is a common problem that often affects response rates, unless requests for feedback are coordinated with other courses and followed up in the right way. Student workload (assessment deadlines) and evaluation requests from other courses should therefore be weighed up, when considering the timing of your own evaluation activities. Ethical issues in engaging students in evaluation activities may need to be considered too.

- **Time scales & dependencies**: detailing when the evaluation activities will take place (e.g. diagnostic evaluation taking place before the start of the course; formative evaluation during the course with reflection on action; summative evaluation at the end of the course) and the key dependencies – i.e. what needs to take place to ensure the effective completion of the evaluation tasks (e.g. preparation and pre-testing of evaluation instruments; establishing criteria for sampling of cohort for focus groups etc.; availability of key stakeholders to manage & perform evaluation tasks; determining when to communication of evaluation tasks to ensure students engagement etc.; resourcing for capture, typing up & analysis of transcripts for focus groups; arrangements for capturing course stats & activity / participation logs). Zero measurements or baseline collection of data will of course need to be undertaken before the delivery of your blended course.

- **Instruments & methods**: outlining the evaluation methods that you will use and the data that will be produced, which should link back to the key research questions that you are seeking to address. You should also clarify here your approach to analysing the data – particularly when you are dealing with multiple sources of evidence.

There’s no prescriptive method for how you draw up your plan, but you may find it useful to document your thinking. A template is provided here:

- **Evaluation planning template** [.docx]
7.5 Interpreting evaluation data

**KEY CONCEPT**

Think critically about your evaluation data and how it may inform your future practice.

You will need to consider how the evidence you have collected may be combined to form a rich picture of student activity within your course. As previously mentioned, interviews or focus groups may serve as a way of probing patterns of activity recorded through activity logs and course statistics, providing a layer of interpretation to the trends that you have identified through statistical data sources. Both qualitative and quantitative data therefore can contribute to your evaluation.

**Critical perspective**

You will need to be careful in interpreting data at face value. If the evaluation instruments (e.g. survey tools) have been pre-tested prior to their use within the course, we may have a higher level of confidence regarding their internal validity, i.e. that they measure what they supposed to do. However, the timing of the delivery of the survey can influence the nature of the feedback. For example, the proximity of survey completion to the distribution of final marks may lead to a halo or horns effect, with the reception of the study methods strongly influenced by assessment performance. Triangulation of results with other data sources may help to confirm or throw into doubt the trends that have been identified.

You should also treat qualitative data with caution. It is often hard to get representative samples of a cohort for focus groups and volunteers may reflect the most motivated students within the class, presenting a one-sided view of the learning experience. For international cohorts, cultural issues may come into play, with some groups of students reluctant to offer negative feedback on the course design or level of instructional support for their learning.

Finally, you will need to question whether the range of data collected enables you to have a comprehensive picture of the learning that has taken place. Do you have the complete picture? Where are there gaps? The visibility of student learning for a group task may be restricted to the formal learning space where students present their finalised work, unless they are required to work
within a designated space on the formative phases of a task. Students may indeed opt to use multiple communication tools outside the formal learning space (for example outside Yorkshare). This complicates the tracking process for student learning, with activity logs recording online activity only in part.

The context of learning in terms of how, when and where students undertake their learning activities may also be hidden and may well affect learning outcomes, in terms of the performance of tasks and reception of the learning methods. These are thoughts to bear in mind when drawing conclusions on the effectiveness of the learning design.
7.6 Evaluation as professional development

Course development

The final step in the evaluation process is to make sense of the evidence that has been collected during the evaluation phase and draw conclusions on the effectiveness of the blended course design and delivery processes. This will help to improve the future delivery of your course and there may also be transferable lessons worth sharing with colleagues for their courses too.

When to assess the effectiveness of the design and delivery methods will of course depend on your course objectives and there is no blueprint for how you may tackle the feed forward process to future course delivery. However, you may wish to consider the following issues:

- Through statistical data you may consider engagement patterns for study activities, whether the drivers for participation are clearly articulated and the instructions or supporting resources are fit for purpose.
- Through focus group and survey feedback you may consider how students perceived the usefulness of the tasks in supporting their learning, particularly if they were intended to support formative learning. To what extent do the online tasks add value and support students in meeting the overall course objectives?

Other issues may relate to the structure and sequencing of the class-based and online tasks and their relevance and fit with the overall assessment plan. The design of the tasks and course
materials, whether they supported different levels of learning, should also be reviewed along with the levels of instructional support afforded to learners. By reflecting on the evaluation data and reviewing these issues, you will have a clearer idea of the effectiveness of the course delivery and the enhancements that can be made to support future course delivery, either for a revised version of this course or a new course, drawing on the lessons learned from this experience.

**Professional development**

Throughout the handbook there have been prompts to evaluate not just the learning and teaching, but your own professional capabilities using technology. The topics explored in this handbook explicitly link to the Higher Education Academy Professional Standards Framework (UK-PSF), in particular the Core Knowledge descriptor:

- K4. The use and value of appropriate learning technologies.

In addition, technology-enhanced learning cuts across all teaching practice and is no longer a separate approach for delivering higher education, but integrated and an expected part of course delivery. As such, parts of this handbook have direct connections to the following descriptors:

- A1. Design and plan learning activities and/or programmes of study.
- A2. Teach and/or support learning.
- A3. Assess and give feedback to learners.
- A4. Develop effective learning environments and approaches to student support and guidance.
- K2. Appropriate methods for teaching, learning and assessing in the subject area and at the level of the academic programme.
- V2. Promote participation in higher education and equality of opportunity for learners.

In addition to FHEA status, you may also wish to explore recognition designed specifically for educators and support staff who work with learning technologies. The Association for Learning Technology has an accreditation programme called CMALT which is a portfolio-based, peer-reviewed certification. The ELDT supports applications and if you are interested in this route, please contact us.
Developing your practice
The 3E Framework is a useful tool for analysing your own or a programme’s use of technology-enhanced learning. This framework relates approaches to using TEL to student learning and engagement. The first three sections of the Handbook on baseline approaches directly links to the Enhance stage, with subsequent sections requiring active student learning described by Extend and Empower stages of the framework.

To use the 3E Framework to gauge your own practice and how your use of TEL is supporting student learning, view the guide linked below.

- View the 3E Framework website [Edinburgh Napier University]
- 3E Framework [PDF] [Edinburgh Napier University]

### LEVEL DESCRIPTION

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>ENHANCE</td>
<td>Adopting technology in simple and effective ways to actively support students and increase their activity and self-responsibility.</td>
</tr>
<tr>
<td>EMPOWER</td>
<td>Further use of technology that facilitates key aspects of students’ individual and collaborative learning and assessment through increasing their choice and control</td>
</tr>
<tr>
<td>EXTEND</td>
<td>Developed use of technology that requires higher order individual and collaborative learning that reflects how knowledge is created and used in the professional environment</td>
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Opportunities
After using this Handbook, if you have identified a gap in your knowledge or would like to develop specific skills to support your use technology-enhanced learning, there are three main opportunities available to you:

- Attend a development workshop or seminar from our schedule of events.
- Use the technical guides or request a specific training session on a tool.
- Arrange a consultation with an E-Learning Adviser in the team to design, implement or evaluate a learning activity or module.