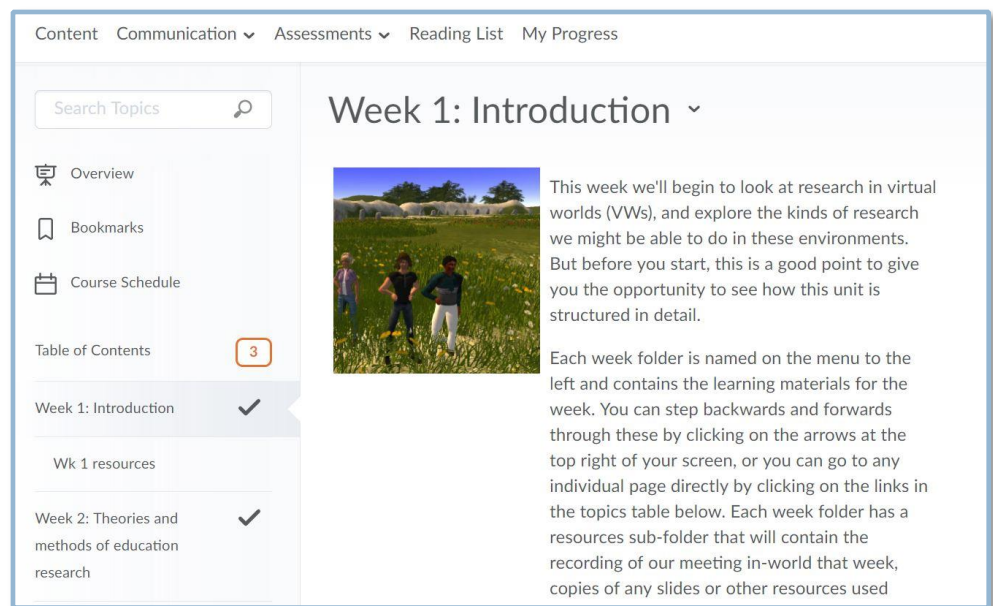


GUIDANCE ON GOOD PRACTICE USING LEARNING TECHNOLOGIES



The screenshot displays a learning management system interface. At the top, there are navigation links: Content, Communication (with a dropdown arrow), Assessments (with a dropdown arrow), Reading List, and My Progress. Below this is a search bar labeled "Search Topics" with a magnifying glass icon. A left-hand navigation menu includes: Overview, Bookmarks, Course Schedule, Table of Contents (with a red box around the number 3), Week 1: Introduction (with a checkmark), Wk 1 resources, and Week 2: Theories and methods of education research (with a checkmark). The main content area is titled "Week 1: Introduction" with a dropdown arrow. It features a photograph of three people in a field. To the right of the photo, there is a paragraph of text: "This week we'll begin to look at research in virtual worlds (VWs), and explore the kinds of research we might be able to do in these environments. But before you start, this is a good point to give you the opportunity to see how this unit is structured in detail." Below this paragraph is another paragraph: "Each week folder is named on the menu to the left and contains the learning materials for the week. You can step backwards and forwards through these by clicking on the arrows at the top right of your screen, or you can go to any individual page directly by clicking on the links in the topics table below. Each week folder has a resources sub-folder that will contain the recording of our meeting in-world that week, copies of any slides or other resources used".

August 2019

1. Effective learning design in Virtual Learning Environments

FOREWORD

This document is part of a continuously developing collection of codes of good practice for tutors in using a broad range of learning technologies. The guidance is part of a wide range of available support at BU, which includes;

- face to face working on projects, workshops and similar activities with colleagues in FLIE, specialists and colleague groups across the university and external specialists,
- examples of learning technology being used in practice, including courses and examples in [Brightspace](#), interactive case studies, reports and examples on the [Centre for Fusion Learning Innovation & Excellence \(FLIE\) blog](#), the [TEL Toolkit](#), and
- written guidance such as this, which will build to form an accessible reference library covering a wide range of technologies, and how they can be used to enhance learning, teaching, assessment and student engagement.

There is also a great deal of effective guidance provided externally by bodies such as the Joint Information Systems Committee (JISC) and the Higher Education Academy (HEA). The [JISC Guides](#) and the [HEA Knowledge Hub](#) are great places to go for a lot of up to date, research-based and evidenced practice guidance. The guidance provided in this BU series draws upon some of the JISC and HEA work, together with the findings of case studies, tutor experiences and formal research literatures from around the world.

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1 BU CONTEXT

Fusion is Bournemouth University’s approach to learning that aims to create a world-class learning community through a fusion of research, education and professional practice, leading to excellence in student learning. A VLE platform can be used to create an opportunity to further embed the University’s Fusion philosophy at unit level and illustrate relevance and impact of the pedagogies at topic level. The alignment of Fusion with pedagogical practices enables students and the University to enhance evaluation of Teaching Excellence (TEF), as well as greater opportunities for pedagogical innovation to improve student learning satisfaction, and the potential to improve NSS scores.

Fusion is the combination of inspirational teaching, world-class research and the latest thinking in the professions which creates a continuous and fruitful exchange of knowledge that stimulates new ideas, learning and thought leadership. The diagram at Figure 1 shows a visualisation of the Fusion approach, demonstrating how these three aspects fuse at the heart of the model to create energy, activity and new ways of working.

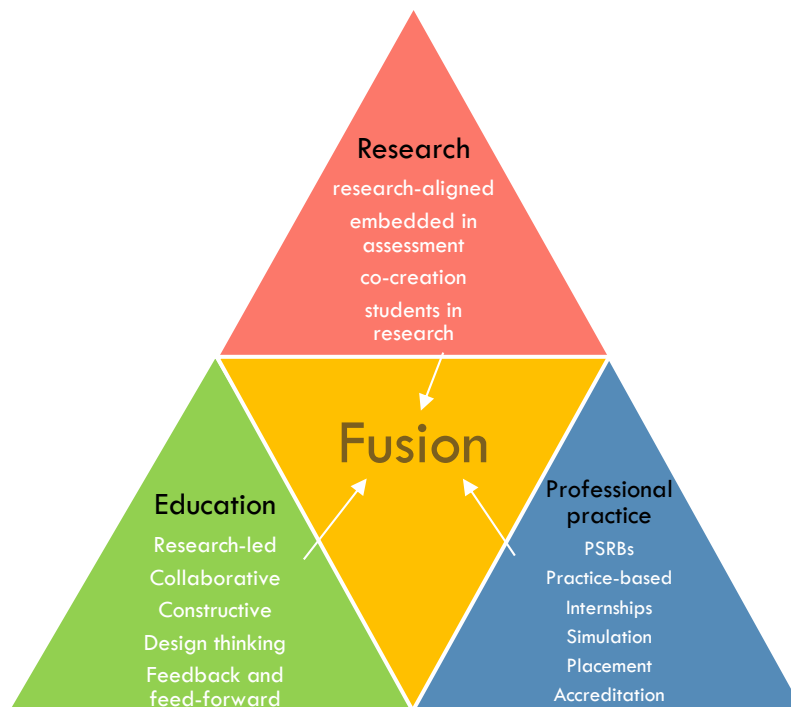


FIGURE 1- THE BU FUSION MODEL

The concept of Fusion underpins research-informed education with the application of professional practice to enrich learning and provide students with inspiring opportunities to engage with their learning in a community with global outreach. Tutors can generate enthusiasm in learning by aligning their practice more explicitly with their research and participating in innovative developments, where students

participate in co-creation and co-production. Effective professional practice, incorporating the prerequisites of Professional and Statutory Bodies (PSRBs), also helps students to understand how their time at university is preparing them for a lifetime of work. The guidance provided here draws upon and applies the Fusion approach.

2 INTRODUCTION

Virtual Learning Environments (VLEs) can effectively support learning in a variety of ways. The most important underlying principle of a good student learning experience is that courses need to be designed. Their structure needs to be considered from the point of view of the user, and navigation around the course should be clear and unambiguous, as far as possible. One of the most effective ways to achieve this is through structure and ‘table of contents’ design, so this is the first element of this guidance. Level of study is also an important consideration in course design. For example, level 4 students generally need more structured guidance than those studying at level 5 onwards, as they need to develop skills in finding and managing resources, and in becoming autonomous learners who take increasing responsibility for their own learning.

The second element of the guidance offers a typological framework that helps colleagues to identify the approach to using a VLE that best suits their students’ needs, and to explore the structure and content that best fits those different needs.

2.1. Basic principles

There is a large body of education theory that has been adapted and enhanced in relation to learning technologies and, as those technologies continue to emerge and mature, so theory continues to develop. It would be neither helpful nor practical to try to summarise all that theory here, but much of the current thinking about the use of technology to enhance learning and teaching can be categorized in a way that helps to guide our use of a VLE. VLEs are not new technologies, but it is true to say that they are often not utilized to their full potential in many universities. Table 1 outlines how the tools that are present in VLEs like Brightspace or MyBU might be more fully used to achieve principles of good practice and also demonstrates how these principles are part of the Fusion approach at BU. The table is adapted from the JISC InfoKit on effective use of a VLE, originally published in 2004 and still used as a framework by many universities to encourage the application of good pedagogic principles to the design of VLE courses. The left column of the table is based upon the Seven Principles of Good Practice in Undergraduate Education, developed by Chickering & Gamson (1987). The six principles that relate to course design are itemized in the table; the seventh refers specifically to assessment. As assessment is the subject of the next code of good practice in this series, that principle is discussed there. The right column offers updated suggestions for how the tools of a VLE might be used to achieve the principles; how these activities address the Fusion approach at BU is shown in coloured brackets that relate to the diagram in Figure 1.

Although these principles are aimed at undergraduates, they are also relevant to taught and research postgraduates, with some adaptation to suit their level of study and a greater emphasis on autonomy of the learner.

PRINCIPLE	APPLICATION IN A VLE
Encourage student–staff contact	A VLE can help contact between tutors and their students through the use of communication tools such as chat, discussion forums and blogs (collaborative). Students can post messages at a time and place convenient for them and tutors can set up a Q & A or Feedback area in the discussion board, for example, which tutors read and respond to on a regular basis.
Encourage co–operation among students	The discussion tools can be used to encourage student co–operation in small or large groups, face to face or online. Areas can also be created in a VLE for students to share work. For example, groups of students can have a private area where they work together on problems, develop group presentations or simulate working in a professional environment (collaborative, constructive) (PSRBs, practice-based, simulation). They can blend where they work between the VLE and face to face, utilizing both environments for what they do best.
Encourage active learning	Through course design that focusses on student activities, you can encourage active learning (design thinking). Before designing learning activities in the VLE, you might think about what you want the students to do and how these activities will help fulfil their learning outcomes. For example, if you want them to review a poem from World War 1, you might divide the class into groups and ask them to review the poem from different perspectives: from the reader, the poet, the narrator, the friend. These could all be housed in the VLE with groups commenting on each other's work (collaborative) (co-creation). Or, you might use the VLE as a gateway to online active learning environments like virtual worlds, or places where they can interact with artificial agents, or sites where they can undertake simulated activities in their field of study (collaborative, constructive) (practice-based, simulation).
Emphasise time on task	By using a VLE to link to Library assets, and the wider world of online resources, you can help level 4 students to find appropriate literature and resources so they can complete particular tasks, and train them in how to find these resources for themselves as they progress to levels 5 and 6 (design thinking). For postgraduate students, literature reviewing is a fundamental skill, and tutorials on finding, reviewing, citing and writing that incorporate live links can be useful resources for them in the VLE (research-aligned).
Communicate your expectations	As a tutor, you can use a VLE to show or even demonstrate what you expect of your students. With agreement from students, you can use anonymized examples of previous work to show the level of work that you expect and why (feedback and feed-forward).

Respect diverse talents and ways of learning	Students have different learning preferences and abilities; one of the key affordances of learning technologies is the ability to offer choices that can help to accommodate those differences. For example, visual learners are likely to respond to pictures and videos more effectively than written documents, whilst others who utilize a more linear approach to their learning might prefer text. In the VLE you can embed video and pictures, and accompany those with the notes and text you used to create the visual and audible elements (design thinking, constructive, research-led).
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3 STRUCTURE AND MENU DESIGN

There are no hard and fast rules when it comes to the design of a course structure, or of a table of contents of the type that you can create on the left side of a Brightspace or MyBU unit. But there are some approaches that can help course designers and tutors to make online courses engaging, accessible and easy to navigate and fulfil the principles discussed in Section 2. These approaches are described below, but they are not intended to be exhaustive. New ideas and trying out different approaches is encouraged, and CEL would be happy to help colleagues to spread the word on their practice through workshops and online demonstrations.

3.1 A note on levels of study

Level of study has a significant influence upon the way students are taught and assessed, and what we expect of them as they learn. The autonomy expected in learners increases from level 3 (HE foundation) onwards and the nature of the academic support differs across levels. At the lower levels the support concentrates on knowledge and understanding and at the higher levels on synthesis and evaluation. Assessment also changes from levels 3 - 7, tending to increase in complexity and autonomy.

The structure and navigation of a unit should be influenced by the requirements of students at that level. In particular, the specificity of the navigation guidance tends to decrease as the levels go up. For example, level 3/4 students are likely to need some quite specific guidance on, and links to, literature and resources that support their studies. For level 5 students, we might provide direct links to databases of literature sources, but expect them to discover relevant material themselves. We might expect level 6/7 students to be competent at both finding sources of learning materials, and the relevant materials themselves.

As student needs and teaching and learning approaches differ widely across subject areas, it is impossible to create specific online course design criteria for different levels of study. This guidance simply encourages colleagues to consider the issue of levels in their course design. For information, the latest SEEC credit level descriptors can be found at <http://www.seec.org.uk/wp-content/uploads/2016/07/SEEC-descriptors-2016.pdf>.

3.2 Approaches to Table of Contents design

The table of contents on the left of the content area in a Brightspace unit can be structured in a variety of ways. These would normally reflect the pedagogic approach being utilised in a unit, but this does not

mean that each way of structuring a unit only has to follow one approach. Mixed approaches can work very well. Examples of these might include, but are by no means limited to:

1. Week by week modules and submodules which contain the learning materials and resources for that week. This style tends to suit those subjects that build upon understanding in a structured fashion, or where students are distant from the university for much of their study and they lack the structuring effect of weekly classes. In these cases, the structure of a weekly table of contents can be helpful. Pedagogies that “flip” knowledge transfer to before the class session, rather than as part of it, can also find calendar structures like this effective.
2. A structure that reflects a range of concepts that will be synthesized during the unit. In these cases, the order of the folders in a table of contents may not be of particular importance, although structuring the table might help students to structure their synthesis by following a similar line of argument. There would still be an “introduction” at the beginning of their study, and a “conclusion” at the end of the unit, but the structure in the middle can be quite fluid, and indeed could be negotiated with the students as a co-created curriculum. In these cases, the shape of the unit can vary each time it runs, although the overall pedagogy of conceptual synthesis remains at its heart. These structures are often, but not exclusively, found in arts and humanities subjects.
3. Practice-based pedagogies tend to require a structured approach, but this would not necessarily be a calendar structure as in 1 above. Skills acquisition is often layered, with opportunities for initial skills acquisition being followed by opportunities for practice, formative assessment and repeat practice in a cyclic structure. Content design in these cases can benefit from being iterative, with opportunities to cycle through the same learning activities more than once, learning from previous attempts and gaining experience and confidence with each cycle. This is often characterized as the “learning from failure” approach, although that description is probably rather simplistic.
4. The three types above are predicated upon physically close involvement of a tutor as part of the student’s learning experience. However, online courses can be constructed that require significantly less direct tutor contact than face to face approaches. In these cases, the tutor is “in” the materials, rather than being separate from them. Fully distance learning units and programmes are likely to adopt this style, but that does not mean that the tutor is not involved; rather that the nature of that involvement changes to be mediated through the use of learning technologies. In these cases, the navigation around the unit is vitally important, as this partly takes the place of a face to face tutor.

For examples of how these structures might look, and some principles of good practice relating specifically to content, see [Appendix 1](#).

4 A TYPOLOGICAL FRAMEWORK

Brightspace units are used to support a range of learning outcomes in different ways. The majority of units at BU require attendance at the university and are taught face to face, and much of the guidance below takes this into account. However, more flexible ways of learning are offered by the university, and further opportunities are being developed, so the guidance also considers VLE design for these types of course design. The basic approaches to using a VLE can be broken down into 3 main categories, but these are not hard and fast and uses can span them. They are offered here as a way of understanding online design, and the guidance that relates to each category can be mixed and matched.

- **Information:** some uses of a VLE concentrate upon providing information to students about a programme, module or learning group. The information can cover a variety of content and communications related to these uses and can include course notes, presentations and other information about the course or resources used in teaching it. The tutor/student interaction is mainly, but not necessarily only, achieved face to face.
- **Blended:** in some cases VLEs are used to deliver content, communication and learning activities alongside or integrated with face to face activities. The blend represents a learning experience that takes place both in the classroom and online. In this category some of the learning objectives of the module are achieved by engaging with the online content and/or activities, therefore the online environment becomes an integral part of the learning experience. This kind of use includes “flipping” the classroom, where students engage with learning materials in the subject of the next class before the class itself, to enable the class to focus upon discussion and interaction rather than delivery.
- **Non-attending or rarely attending:** this category covers modules with little or no classroom contact time, such as distance learning modes of study. In these cases, the VLE will therefore be one of the main contexts for the learning experience, although it may not be the only one.

4.1 Guidance for each type of use

FACE TO FACE SUPPORT

Indicative content for a VLE unit of this type might contain at least the following elements (or elements achieving equivalent effect – e.g. links):

- At least one announcement or welcome page post containing the following:
 - a greeting to the students
 - an explanation about the intended use of the VLE as a supplementary information repository/gateway.
- Unit information & organisation:
 - lecture dates and times
 - lecture venue/s
 - particular information (e.g. disabled access to the building, etc.)

- any lecture requirements (e.g. the students should bring certain material/equipment to the lectures, etc.)
- unit handbook
- staff contact details:
 - contact details of all the members of staff responsible for the delivery of the particular unit.
- Assessment details (further guidance on assessment is available in the second guidance note in this series):
 - guidance on the process of online assessment
 - supplementary information about the kinds of activity that form part of the assessment of the unit, describing in greater detail the elements and components of assessment stipulated in the unit specification
 - examples of past assessments, if this is appropriate.
- Useful links:
 - It is good practice to include a brief description of any website you are linking to, to
 - indicate why it is a useful site for your students, and
 - describe how to navigate the website in order to get to the resources that you want your students to access
 - remember to select 'yes' for 'launch item in external window' if you are linking to a website outside BU (this is to comply with web standards)
 - remember to include links to the library resources relevant to the module (e.g. web pages maintained by the Faculty Librarian).
- Unit materials
 - A mix of activities and resources makes a VLE unit more interesting and engaging, rather than a list of documents. You might look at the design of your unit reflecting what you would like the students to do, rather than the documentary materials that support their learning.

BLENDED LEARNING

A VLE unit of this type might contain at least the following elements (or elements achieving equivalent effect with a focus on learning content):

- At least one announcement or welcome page post containing the following:
 - a greeting to the students
 - a brief explanation about the intended use of the VLE as an extension to the classroom in terms of learning activities
 - an explicit note about the need for students to engage with the VLE unit in order to achieve all the learning objectives of the module.
- Learning content
 - opportunities for students to interact with learning content, e.g. video, quizzes, discussions, games, links, personalization through release criteria, guided learning activities

- clear guidance on how the online learning activities will blend with attended sessions
- a resources folder for artefacts used or generated during learning activities, links to lecture capture, documents that support learning.
- Unit information & organisation:
 - unit specification;
 - detailed explanation about the blend applied to the delivery of the unit (e.g. what learning activities will take place face-to-face and which will take place online.).
- Calendar:
 - expected timings and/or dependencies between face-to-face sessions and online learning activities.
- Staff contact details:
 - contact details of all the members of staff responsible for the delivery of the particular unit.
- Assessment details:
 - guidance on the use of online assessment, and plagiarism detection if appropriate
 - a clear explanation on whether students' engagement with the Brightspace course and its contents will be assessed in any way

NON-ATTENDING OR RARELY-ATTENDING MODES

A unit of this type might contain at least the following elements (or elements achieving equivalent effect):

- At least one announcement or welcome page post containing the following:
 - a greeting to the students
 - a brief explanation about the intended use of the VLE as one of the technologies in use for the delivery of a distance learning module.
- A series of subsequent announcements during the course of the unit. Possible topics covered by the announcements might include:
 - weekly updates;
 - reminders;
 - latest news about the topics covered.
- A guided journey through VLE-specific activities and content, such as:
 - opportunities for students to interact with learning content, e.g. video, quizzes, discussions, games, links, personalization through release criteria, guided learning activities
 - a resources folder for artefacts used or generated during learning activities, links to lecture capture, documents that support learning.
 - if appropriate consider organising student groups to enable group work and communication (this will be particularly useful if you follow a problem-based learning approach);

- structure of the unit (e.g. navigation, timings, dependencies, monitoring, etc.) to facilitate students' learning journey. Tutors might want to consider the use of the conditional release features of Brightspace to personalise students' experience.
- Unit information & organisation:
 - unit specification or handbook;
 - detailed explanation about whether any level of blend applies to the delivery of the unit (e.g. some material only available in hard copy, or some activities not taking place online).
- Calendar:
 - detailed weekly schedule of learning activity (whether the activities will be online or not);
 - additional reminders for timed online activities requiring student input (e.g. structured discussion activity).
- Staff contact details:
 - contact details of all the members of staff responsible for the delivery of the unit.
- "What to expect" section explaining:
 - what is the range of activities that will be carried out online?;
 - what is the likely response time for questions or queries?
- Assessment details:
 - guidance on the use of online assessment, and plagiarism detection if appropriate
 - a clear explanation on how students' engagement with the activities set up on the Brightspace course will be assessed (cross-ref to Guidance Notes 2 – assessment).

5 SUMMARY

This guidance discusses the principles of good unit design in VLE's and applies those principles to practice at BU, particularly in relation to the philosophy of Fusion. At the heart of the basic principles is the importance of making learning as active as possible, moving on from the traditional uses of VLE's as document repositories and towards opportunities for interaction with unit materials, and with other members of the unit. The guidance considers academic levels and modes of attendance as 2 of the main indicators for approaches to design and creation of VLE units, providing suggestions for unit structure and content that colleagues can adapt to their students' specific needs.

The next part of these good practice guides will focus upon summative and formative assessment and feedback.

Appendix 1 – examples of menu structures and effective design of content

Figure 2 to the right is an example of a Brightspace Table of Contents (TOC) for a unit that best suits a week by week approach. Figure 3 below is an example of a TOC structure that focusses upon concepts or topics as the module headings. Both these designs are equally valid, depending upon the nature of the unit and the learning journey that students will undertake whilst studying it. And, there will be other designs that are appropriate too – it all depends upon the nature of the unit and how you would like students to engage with it.

Irrespective of the specific design of the TOC, there are two basic principles that can be applied to the content that it contains, as follows.

1. Firstly, it helps students to engage with content if they feel it is personalized to them, as far as possible. To increase the sense of personalization you might:
 - a. Explain why content is there and what you expect the students to do with it. VLE's make good content repositories to support attended learning modes, so if your main use of the VLE is to hold support material for attended units it is good practice to use the VLE to 'talk' to the students about the content and what it is for. Just a short note can help the students to feel connected to you and the unit. For example: *"Here are the slides from this week's tutorial. I'd like you to look over them again before we meet next week, just to ensure you understand the critique of risk matrices we discussed in class. There'll be time in the next tutorial to discuss any questions, so come prepared!"* As a rule, it is not advisable to upload content with no comment from the tutor.
 - b. Personalise your content and comments by using the {firstname} facility in Brightspace in some places. There's no need to do this too much, but occasional references to their first name can help the students to feel like they are being addressed personally.
 - c. It is good design to apply distance learning principles to your unit, even if the students attend full time. So, put yourself in the online materials, e.g.

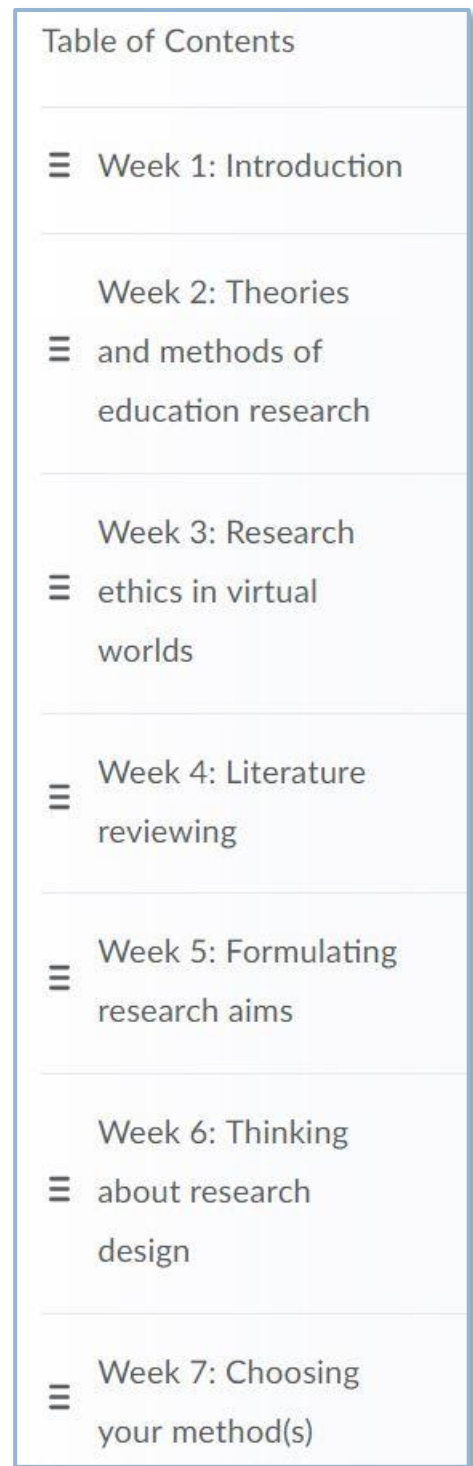


Table of Contents	
☰	Week 1: Introduction
	Week 2: Theories and methods of education research
☰	Week 3: Research ethics in virtual worlds
☰	Week 4: Literature reviewing
☰	Week 5: Formulating research aims
☰	Week 6: Thinking about research design
☰	Week 7: Choosing your method(s)

FIGURE 2 - WEEK BY WEEK TOC

- i. explain how you will be using the VLE in your unit at the beginning in the Overview, where you can also attach the unit specification.
 - ii. Introduce each module by using the module introduction.
 - iii. You can use the Video Note facility in Brightspace for short, informal videos. Think about doing this for starting discussion threads rather than a written starter question or topic. Some weeks of study or topics could be introduced this way in the learning module introduction, too.
 - iv. Use first person language as far as possible. In this way you can ‘speak’ directly to each student, which can help to reduce the sense of anonymity sometimes felt by individual students in larger groups. Speak to your students directly through the VLE.
2. Secondly, the structure of the unit and how students are navigated around it can encourage greater engagement with the VLE, for example;
- a. Make it clear how the structure of the menu relates to the structure of the unit description; it doesn’t have to match it directly, but it should relate to it closely.
 - b. Think about how the VLE can be used as a ‘portal’ to other resources or experiences for students, rather than solely a resource repository. Links out to websites and embedding videos and other media are straightforward ways to achieve this, but it’s good design to set all links to open in new tabs in the browser, so that students can maintain their place in the unit whilst browsing. Direct links to e-books held by BU Library can make supporting reading easy to access, and interactive media like talking heads which you can pre-record on websites like www.voki.com can all add variety and encourage engagement.

☰	What are virtual technologies?
☰	Virtual reality
☰	Virtual worlds
☰	Augmented reality
☰	Mixed reality
☰	3D and 360 degree video
☰	How can they be used in education?
☰	How do I get started?
☰	Links, resources and further reading

FIGURE 3 - CONCEPT/TOPIC TOC

You can see an example of a Brightspace unit that uses some of these approaches by logging into Brightspace and searching for [Brightspace Online Training](#) in your available units list. If you are already logged into Brightspace just follow the link.