COURSE HANDBOOK:

Understanding Learning in the Online Environment

[EDUA11145]

Session 2018/19

Introduction

Welcome to Understanding Learning in the Online Environment (or ULOE for short).

This course aims to help participants further their understanding of the processes and mechanisms of learning, and thus to help them to develop their own practice as it applies to the support of learner groups with whom they are involved.

The course intended for practitioners within post-compulsory education and training who wish to further their understanding of the various theories that have been developed as to how people learn, form personal understandings and construct knowledge. Although not addressing course design per se, it will consider the ways in which understanding of the processes of learning can inform the practices of teaching, particularly in technologically mediated contexts. We come from the stance that online education is not fundamentally different from learning through other media, but that there are opportunities and challenges around the digital which can alter the social, interactive and material aspects of learning.

The assessments for this course draw on what we think are particularly useful activities for better understanding learning in online environments and in relation to your own specific professional context. These include: exploring your own learners' needs; having your own experience of being a novice and getting to explore deeply a theme that relates to your own professional interests (e.g. motivation, active learning, identity or so on). The course also has assessed discussion participation. This is intended to encourage and reward thoughtful contributions to our course, and also to prompt you to think further on the relationship between assessment, motivation and forms of learning.

As your course tutors, we are committed to working with you dialogically and to helping to build a rewarding "community of learners" — in other words, a course experience from which everyone concerned (and that includes us!) has a great deal to learn. Your part in creating that community is to demonstrate a commitment to the collaborative activities and engage fully with the learning opportunities offered.

We look forward to the coming weeks, and anticipate many interesting debates and discussions!

Course team and contact information

Clara O'Shea (Course Organiser)

Email: clara.oshea@ed.ac.uk
Tel.: +44 (0)131 651 6116
Skype: clara_oshea
Twitter: @claraoshea

Pete Evans

Email: peter.evans@ed.ac.uk
Tel.: +44 (0)131 651 6345
Skype: peter.evans961
Twitter: @eksploratore

The Programme Secretary is:
Victoria McIntyre
Email: digitaled@ed.ac.uk
Tel.: +44 (0)131 651 1196

Course learning outcomes

On completion of the course, participants will be able to:
- demonstrate a critical understanding of a range of theoretical perspectives which have been developed to understand learning;
- analyse and assess these perspectives in terms of the insights they offer into the nature of learning in online environments; and
- critically evaluate these perspectives, and synthesise their knowledge into an understanding of the implications for the participant's own practice.

The whole notion of "learning outcomes" is troublesome, and will no doubt arise as a topic of conversation on this course. Suffice to say here that while learning outcomes can be expressed in a general advisory way for a course as constructed, the most important learning outcomes will be those identified and owned by the learner.

Delivery and workload

As with most of the other courses on this programme, ULOE will use Moodle as the main course space. We will be using Discord for synchronous text and voice sessions.

The course will be primarily based on guided personal reading, supported by 'tutorial' participation mediated through asynchronous text and synchronous voice discussions (in Moodle and Discord respectively). Core readings are provided with optional secondary references available for you to follow up further based on your particular interests. You are encouraged to browse a small number of key journals (also available online through the University Library) to develop a feeling for the issues current in the field.

Participation in the course online discussion will be expected of all course members. The quality of participation will be assessed, and will contribute to your overall course grade. This is outlined below under the 'Assessment' section, with further details provided online within the course Moodle site. While participants are, of course, welcomed and encouraged to drive online discussion in those directions that seem relevant to them within the defined aims of the course, stimulus to discussion will be provided by position papers, weekly discussion activities and the course readings.

Successful participation in this course will require around 7-10 hours a week in discussion, reading, exploration and writing, with more than this likely around the time of assignment completion. As suggested in the introduction to this handbook, you will need to make a significant commitment to the course in order to contribute to class discussions. We would recommend logging in to Moodle almost every day to keep track of class discussions. You will also need to set aside good chunks of time three or four times a week for undertaking course activities, doing the readings and keeping apace with the course work.

Participation etiquette

All participants on this course will be assumed also to have participated (or to be concurrently participating) in the foundation course An introduction to digital environments for learning, and will be expected to import their experiences from that setting. As a participant on this course, you are expected to contribute regularly to the class discussions, and that when you do so the basic rules of 'netiquette' will apply. While robust debate is to be encouraged, please ensure that your contributions are polite and supportive. Someone who expresses an opinion

with which you profoundly disagree is doing you a great service; he or she is helping you to articulate an understanding that you may previously not have had. As a recipient of robust criticism understand that the critic is doing a courtesy in engaging with your ideas, and is helping you to refine them.

Some more detailed recommendations about the structuring of your online contributions are provided on the course Moodle site. In the meantime, general guidance can be summed up in the words 'little and often'. Each post should primarily make one point, or relate to one topic. If you want to make more than one point, make separate posts. Such a discipline will make it much easier for a reply to be shaped, and will make it easier for the reader to follow what is going on. To quote from a previous course guide for An introduction to digital environments for learning:

> *Contributions to the discussion don't have to be beautifully structured and written in formal, typo-free academic prose, but they should be reasonably clear and – very important – should function to drive the discussion along in a positive way. Try also to keep your discussion postings reasonably short and to the point – long, very intricate contributions tend not to be read, and can put others off contributing themselves.*

Networking and connecting

As well as using different digital spaces for formal course discussions, we would strongly encourage you to make connections informally. Twitter, Skype, and Discord, for instance, have all proved useful for networking, after class discussions, debriefs and the occasional 'wee blether' (a random chat about nothing in particular). Guidance on setting up accounts for some of these technologies is in the Technologies Handbook which is available online at https://www.wiki.ed.ac.uk/display/mscdetech.

The Moodle course has a 'course contacts' section on the course home page. This is a great place to keep your classmates and tutors up-to-date with your preferred contacts and a very handy way to find others' contacts when you feel like starting a 'corridor' conversation. It's a wiki – so please add your own details. If you need help, just email Clara.

Computer skills, equipment and software requirements

The Technologies Handbook (https://www.wiki.ed.ac.uk/display/mscdetech/) will give you the background information that you will need (for example, about browser configuration) in order for you to access the University systems and some of the environments we use.

You do not need to be an advanced computer user to do any of the courses on the programme, though you will need a basic level of competence in the use of your computer. You should know how to use a web browser, email, and a word-processor, and should be reasonably confident in managing files on your computer and downloading files from the internet.

As with all the MSc courses, to participate you will need regular access to a computer capable of connecting to the Internet and to the course's Moodle site. Again, you should consult the Programme's Technologies Handbook for further, more specific advice and guidance.

For the synchronous seminars, a headset with microphone will be useful or else just standard headphones and built in computer mic. If you are using Discord via a browser, you may need to test it via a few browsers as some work better than others. (The Discord app may be a more reliable method than the browser version.)

Course structure and format

ULOE runs over a 12 week semester teaching period, from Monday 14 January until Sunday 7 April 2019. A week of study on this course includes the weekend, i.e. each week of work runs from Monday to Sunday.

There is an orientation week (week 0) starting Monday 7 January. This is an opportunity for you to explore the course, make your introductions and settle in.

The course outline is given here, and you'll find more detail in the course Moodle site itself. Throughout the course, we will have occasional, synchronous sessions in Discord. The sessions will be recorded for those that aren't able to attend. There will be more on the seminar series in the course Moodle site.

Week 1: Overview

In this first week of the course, we introduce the position papers, the course structure and talk through the course assessments, deciding on our learning challenges and what constitutes 'good' discussion participation.

We will also start unpicking the concepts of learning and knowledge. What is learning? How do we know when it has happened? Is learning different in formal educational settings? How does our understanding of learning relate to our ideas of what constitutes 'knowledge'?

Week 2: Human cognition

This section will provide an introduction to the understanding of how the human mind processes incoming information and derives from that processing an understanding of the world. A historical perspective will be given, tracing the development of ideas of learning from Behaviourist and Associationist roots, through cognitive notions such as Constructivism, to the socially situated and distributed ideas of cognition.

Week 3: Learning and the nature of knowledge

The business of teaching is sometimes discussed as if it were a matter of transmission, and we speak of 'delivering' a course to a group of students. This section will seek to call into question that 'transmissive' or 'instructionist' notion of the educational process. When we consider how knowledge is constructed and stored in the brain we realise that it is not possible for understanding to be passed from the teacher to the learner. The best that the teacher can hope to achieve is to cultivate the circumstances in which the learner will be encouraged and enabled to construct his or her own understanding.

Week 4: Active learning

In this section we will consider the evidence that learning occurs through active engagement with meaningful experiences. Psychological notions such as 'levels of processing' will be linked to educational heuristics such as Bloom's Taxonomy, Kolb's 'Learning Cycle', or Bruner's 'Spiral Curriculum'. A case will be made for digital and online environments providing rich opportunities for active learning.

Week 5: Assignment preparation

We pause teaching activities this week to work on our first assignment (the learner analysis) and allow time for students to share drafts and comment on each other's work.

Week 6: Distributed cognition

In this section we will consider how knowledge is only partly located within the head, and that it is also related to our bodily and material existence, it is situated in particular contexts of action in the environment, and may be distributed across the various members of a team.

Week 7: Social learning

Personal knowledge construction through active engagement with the physical environment can only be part of the story. Human learning is located within, and crucially resourced by, the activities of other people. Social interaction provides a relevance and motivation for learning, and the intervention of peers and mentors provides a 'scaffold' within which new knowledge construction is supported. Learning is also importantly tied up with the development of one's own identity in human society and culture. This section will consider the nature of this social and collaborative grounding of learning, and the ways in which the online environment alters and supports it.

Week 8: Learning and identity

Education is a process of constructing and developing an identity. The student is as much learning to 'become' an engineer or a historian as he or she is learning 'about' engineering or history. It can be shown that the strength of the expert is not that they know more about a given topic than the novice but rather that they know how to perform in a given domain of knowledge, to gather insights and to solve problems. This section will consider the perspective on learning that suggests that it is about a gradual and supported progression towards membership of a community of practice.

Week 9: Motivation

Learning will not proceed without the motivation of the learner. Motivation to learn can come either from intellectual interest in, and curiosity about, the topic in hand (intrinsic motivation) or be derived from some external influence such as fear of failure, desire for good grades, or from some pragmatic goal such as the bettering of employment prospects (extrinsic

motivation). Different sources of motivation will lead to different approaches to learning, and to different patterns within the knowledge structures created. Consideration will also be given to the influence of assessment practices on learner motivation.

Week 10: Individual difference

If learning is a constructive process, based on the foundation of previously acquired knowledge structures, it therefore follows that learning will proceed differently for every learner based on the background context which he or she brings. This section will consider the ways in which learners may differ. Students' perceptions of themselves as learners (for example, 'not good with numbers') and their overall levels of self-belief and self-efficacy can constrain their potential, as can their approach to study, be it based on constitutional cognitive propensities, or acquired from previous encounters with learning.

Week 11: Learning and the digital

Central to the business of any educational endeavour not only will be the learners' grasp of the subject domain in question, but also their development as autonomous and self-regulated learners. Following on from the notion that a learner can differ in their approaches to study is the possibility that, through appropriate guidance and personal reflection, they can come to configure themselves as more effective learners. In addition, new technologically supported information ecologies are coming to change the range of skills that the scholar requires to remain effective. This section will consider the construct of 'study skills' and the new range of opportunities and challenges that networked environments afford.

Week 12: Assignment preparation

This week we turn our attention to self-assessing discussing participation and preparation for the final assignment - the course essay.

Assessment

Assessment types and deadlines

Assessment of the course will be based on four elements:
1. Learner analysis - 20% of overall grade, due Sunday 17 February 2019, end of week 5

2. Learning Challenge - 20% of overall grade, due Sunday 24 March 2019, end of week 10
3. Discussion participation - 10% of overall grade, due Sunday 7 April 2019, end of week 12
4. Essay - 50% of overall grade, due Sunday 28 April 2019, three weeks after the teaching period ends

Assessment criteria

All assignments on this course are underpinned by the Postgraduate Common Marking Scheme and,in particular, the following assessment criteria:

- Knowledge and understanding of concepts
- Knowledge and understanding of literature
- Constructing academic discourse

Specific criteria for each assessment are outlined briefly below, but as findings in the emerging field of assessment literacy suggest, being given information about assessment criteria isn't enough to develop a firm grasp of what counts as work of an appropriate quality. What also helps is to look at a range of examples of other students' work, to use this to sharpen a sense of what is good, and to gain practice in producing work of your own that meets your thinking about standards. For this reason, we encourage you to share your writing processes with your peers and engage with their work as a 'critical friend' - being offering constructive insights and questions to help progress their work. We shall also be using the Moodle forum, during the course, to provide opportunities for further discussion of assessment requirements.

Assessment format and submission process

Format: All assignments are expected to be textual in nature and delivered via Word or PDF document (though you may wish to include relevant images or videos for your learner analysis and/or learning challenge).

If you wish to create a more multimodal assignment (e.g. animation, video, podcast etc); please negotiate this with the Course Organiser well in advance of submission.

For the discussion participation element, a self-assessment form will be provided via Moodle.

Submission: All assignments are to be submitted via the Assignment Tool in Moodle.

1. Learner analysis

20% of overall grade
Due Sunday 17 February 2019
Word count: 1000 words +/-10% (references excluded from word count)

You will carry out a brief analysis of the learning needs and orientations of one group of learners with which they have been involved, or are likely to be involved in the future. This activity will, of necessity, be highly speculative. The grade will therefore not be based on any idea of pragmatic or theoretical "correctness" but rather upon the richness and variety of the issues reflected upon. You will be given detailed guidance as to how this task should be carried out, and the criteria by which it will be assessed, on the course Moodle site.

Please note that while references to the literature should be included in this assignment report, this will not be weighted in the assessment as heavily for a submission at this (early) stage in the course. Early submission is intended to get the assessment process under way, so that you can receive early formative feedback on your work. Seek to make use of the literature, but the writing should come, first and foremost, from your own knowledge of the characteristics and needs of your learner group.

Assessment criteria:
- Appropriate description of context
  - Is there enough descriptive richness for your audience to understand the context of your learner group? (e.g. age, level, subject etc)
- Depth of reflection
  - Does the reflection go sufficiently deep, or is it just scratching the surface? Have the nuances of the problems and explored beyond what is immediately evident?
- Evidence of criticality
  - Is the author critical of their own assumptions and understandings? Does the author draw on literature and concepts with critical awareness? Or does the author take the context, their own thinking and the literature 'as read'?
- Interconnections

- - The reflection demonstrates connections between current experience and material from courses, previous experiences, and/or existing knowledge.
  - Construction of academic discourse
    - Is the piece well presented and readable? Are the ideas discussed well-structured and well-argued? Are sources cited completely and correctly referenced?

2. Learning challenge

20% of overall grade
Due Sunday 24 March 2019
Word count: 1000 words +/-10% (references excluded from word count)

For this assignment, you will be asked to develop a previously un-mastered motor skill, which (if time and circumstances afford) you will then go on to impart to a cooperative family member, friend or colleague.

There will be a list of suggested skills you could develop in the Moodle course, or you can negotiate another skill with the Course Organiser. The crucial element is that this skill is something entirely new to you. We want you to experience being a novice learner. It's also important that you have access to the necessary learning resources and set yourself a reasonable challenge to attempt to obtain in the time available.

You will write a reflective summary of your learning experiences (and perhaps teaching experiences if you are able to find a willing student!), highlighting the barriers that you encountered and the insights that you gained about your own learning process or learning in general. An appropriately analytic and theoretical approach to this piece of writing should be taken, and references to relevant literature will be expected.

Work on this assignment should commence in Week 1 of the course, with the written report submitted at the end of Week 10.

In undertaking this assignment, you may find it useful to keep a diary, blog or simply a few notes of your progress. Some students also take photos of their progres where appropriate (e.g. if learning origami, knitting, or the like) which they then include in their assignment.

Assessment criteria:
- Appropriate description of context/experience
  - Is there enough descriptive richness for your audience to understand the context and experience of your learning challenge?
- Depth of reflection
  - Does the reflection go sufficiently deep, or is it just scratching the surface? Have the nuances of the problems and explored beyond what is immediately evident?
- Knowledge and understanding of concepts
  - Does the work draw relevant concepts? Are those concepts explained, analysed and evaluated? Are the concepts appropriately in the development of an argument?
- Knowledge and understanding of the literature
  - Does the work draw on a relevant range of literature? Does the work demonstrate critical use of that literature? Is the literature synthesised?
- Construction of academic discourse
  - Is the piece well presented and readable? Are the ideas discussed well-structured and well-argued? Are sources cited completely and correctly referenced?

3. Discussion participation

10% of overall grade
Due Sunday 7 April 2019
Word count: 300 words +/-10% (references excluded from word count)

Your contributions to the discussions over the period of the course will be assessed, and this grade will contribute a small amount to your overall grade. This is intended to encourage exploration of whether, and in what ways, you might use online discussion contributions as an assessed element in your own course design.

Assessment criteria: The approach to grading discussion participation and contributions will be based on that described by Rovai (2000) 'Online and traditional assessment: what is the difference?' Internet and Higher Education, 3, 141 – 151.

This grade will be assigned on the basis of contributions over the entire course. While regular and frequent contributions are assumed over the entire period of the course, we do understand that some inevitable gaps will exist due to other commitments or technical difficulties.

We will ask you to self-assess your discussion participation and provide you with a form to do so via the Moodle site. Tutors will then moderate your self-assessed grade as appropriate. There will be more information about this in the Moodle course and we will discuss it early in the semester.

4. Essay

50% of overall grade
Due Sunday 28 April 2019
Word count: 2500 words +/-10% (references excluded from word count)

The major component of assessed work on the course will be a conventional essay.

A list of possible essay topics will be available in Moodle and we encourage students to adapt those to their own specific professional context and interests. You can also negotiate your own essay topic with the tutor.

The essay topic should be agreed between each student and the Course Tutor by the end week 11 at the latest, though we encourage you to decide on a topic sooner.

Assessment criteria:
- Knowledge and understanding of concepts
  - Does the work draw relevant concepts and theories? Are those concepts and theories explained, analysed and evaluated? Are the concepts appropriately in the development of an argument?
- Knowledge and understanding of the literature
  - Does the work draw on a wide and relevant range of literature? Does the work demonstrate critical use of that literature? Is the literature synthesised?
- Construction of academic discourse
  - Is the piece well presented and readable? Are the ideas discussed well-structured and well-argued? Are sources cited completely and correctly referenced?

A note on word count

Word counts include anything in the assignment up to the references (including tables, footnotes, and so on). References, images and appendices are not included

in the word count. However, you should not expect tutors to read appendices as part of their assessment of your assignment and you should use images judiciously.

Please state the word count at the beginning of your assignment. Those going over or under the 10% margin will be considered not to have met the requirements for the assignments, and penalties are therefore very likely to result.

Addressing your objective while keeping within a constrained length limit is an academic discipline that should be cultivated.

Extensions, late penalties and special circumstances

The programme handbook covers what is required if you need an extension for an assignment or submit late without having sought an extension (available via the Hub handbooks section at http://hub.digital.education.ed.ac.uk/handbooks/).

Please read the sections "Assessment regulations" (for information on extensions, late submissions or non-submissions) and "Special Circumstances" (particularly for where extensions of more than 7 days is required).

The postgraduate common marking scheme

Grades will be awarded in line with the University's postgraduate common marking scheme:

Mark (%)	Grade	Description
90-100	A1	An excellent performance, satisfactory for a distinction
80-89	A2	An excellent performance, satisfactory for a distinction
70 - 79	A3	An excellent performance, satisfactory for a distinction
60 - 69	B	A very good performance
50 – 59	C	A good performance, satisfactory for a masters degree
40 -49*	D	A satisfactory performance for the

		diploma, but inadequate for a masters degree
30-39**	E	Marginal fail
20-29	F	Clear fail
10-19	G	Bad fail
0-9	H	Bad fail

The pass mark is grade D (40%).

For more detail on the regulations governing the course and the programme you should consult your Programme Handbook and the University's Degree Regulations and Programmes of Study (DRPS), which can be found at: http://www.drps.ed.ac.uk/18-19/

In particular, relevant regulations are included at: http://www.ed.ac.uk/schools-departments/academic-services/policies-regulations/regulations/assessment.

Good academic practice on this course

During this course you will be doing quite a bit of reading, alongside the activities and course discussions. It will be particularly helpful at this early stage to get into the good note-taking habit of always including the sources of quotes or summaries you are jotting down. This will prevent having to retrace your steps to find sources later on, and the danger of accidentally using words or ideas you've read, without attribution, in assessed work. Copying and pasting key passages from online sources and PDFs is convenient, but you have to remember to reference them; accidental lack of attribution in assessed work is still considered academic misconduct, so you should always be attentive to this. It's also important to keep track of the sources of images and videos, and to credit these if you use them in your own work. The programme handbook provides more guidance on referencing, and we will be happy to discuss any questions on this you may have.

Academics and researchers tend to each have their own (sometimes arcane) systems for collecting references. If you can get into the habit now of saving all the references you are reading and using in one place, this will help you a lot in your assignments on this and future courses. There are a number of really good online and hybrid systems that can help you. EndNote Web is available to all University of Edinburgh students, and there is guidance on using it in the programme handbook.

If you can get into the habit now (if you aren't already) of saving all the references you are reading and using in one place, this will help you a lot in your future work.

Credit and continuation of study

Successful completion of this course will give you 20 Scottish Credit and Qualifications Framework (SCQF) points at postgraduate level 11. More details of the SCQF can be found at: http://www.scqf.org.uk/.

The full MSc in Digital Education will comprise the foundation course Introduction to digital environments for learning (IDEL; 40 credit points) and four additional 20 credit courses which must include Introduction to Social Research Methods, plus a dissertation. The list of available options is available on the programme website at: http://digital.education.ed.ac.uk/courses.

The regulations governing satisfactory progress for continuation to Masters level by work on, and submission of, a dissertation are given in your Programme Handbook.

Readings

All core, and many useful secondary, references for the course are provided online. These will be linked to from the specific weekly sections of the course Moodle site, and will be gathered together in the Library section of the site. In most cases these readings are published papers or chapters for which specific copyright clearance has been obtained, and which are held by the University Library as Portable Document Format (.pdf) files. You would be well advised to keep a systematic collection of these readings on your computer (or in printed form) for future reference. Participation on the course entitles you to access and use these materials, but access may not continue beyond the end of the course in some cases.

There is therefore no need to purchase any books for the course. Should you want to buy a reference book in the general area however, some suggestions are:
- If you already have a background in some area of psychology or education and would like to increase the depth of your study Bruning, R. H., G. J. Schraw and M. M. Norby (2010) *Cognitive psychology and instruction* (Boston, Pearson) would be highly recommended.
- Should you wish a lighter, yet highly scholarly, text on the theories of learning Bransford, J.D., Brown, A.L. and Cocking, R.R. (2000). *How people learn: brain, mind, experience, and school* (Washington, D.C., National

Academy Press) would be the recommendation. Much of the text of this book is available online at: http://www.nap.edu/catalog.php?record_id=9853#toc.

- Another suggestion (sadly now out of print, although still available second hand from Amazon and others) is Caine, R. N. and G. Caine (1994). *Making connections: teaching and the human brai*n (Menlo Park, Calif., Addison-Wesley Pub. Co.). This book provides a highly accessible overview of the processes of learning, and the circumstances under which learning is facilitated, taking a biological perspective.

Course evaluation

There will be a formal, questionnaire-based evaluation at the end of the course and we will greatly appreciate your contributions at that point.

Please do not allow any day-by-day concerns to go unaddressed however. We ask you to be patient with any technological problems that we may encounter. But please feel free to bring any questions or issues to the course coordinator when they arise, be they academic or technical, and we will do our best to amend, or work around. We want you to get the most possible out of the course, and all feedback will be valuable for the future development of the course, and of the programme of which it is a part.

Good luck with your studies, and we look forward to seeing you online!