



EDUC706

Learning and Technology

S2 Online 2019

Department of Educational Studies

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Disclaimer

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General Information

Unit convenor and teaching staff

Convenor

Matt Bower

matt.bower@mq.edu.au

Contact via matt.bower@mq.edu.au

Building 29WW Room 238

By appointment

Credit points

4

Prerequisites

Admission to MRes

Corequisites

Co-badged status

Unit description

This unit examines learning technology selection, implementation issues, and evaluation in a variety of educational contexts. It provides opportunities to consider theory in relation to practice and encourages experimentation as well as the evaluation of pedagogical practices. It will include investigation of the research methods and research applications possible with digital technologies.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://www.mq.edu.au/study/calendar-of-dates>

Learning Outcomes

On successful completion of this unit, you will be able to:

Demonstrate an understanding of how to integrate technology effectively into classroom practice.

Describe a range of contemporary technologies and critically evaluate their potentials for educational purposes.

Critically review research literature and discourse relating to the use of technology for learning

Critically evaluate and justify technology selection and design decisions with reference to

current scholarly commentary, research and theory in pedagogy regarding technology in educational contexts.

Explain in a broad sense how digital technologies impact on our social, cultural and educational lives.

Model positive attitudes and social behaviours relating to the integration of technology within teaching and learning, including effective participation in collaborative processes.

General Assessment Information

1. In general, there should be no need for extensions except through illness or misadventure that would be categorised as serious and unavoidable disruption according to the University definition of same, see: <https://students.mq.edu.au/study/my-study-program/special-consideration>
2. Applications for extensions must be made via AskMQ according to the Special Consideration policy. Extensions can only be granted if they meet the Special Considerations policy and are submitted via <https://ask.mq.edu.au/>. This will ensure consistency in the consideration of such requests is maintained.
3. Late submissions without extension will receive a penalty of 5% reduction of the total possible mark for each day late (including weekends and public holidays). You are reminded that submitting even just 1 day late could be the difference between passing and failing a unit. Late penalties are applied by unit convenors or their delegates after tasks are assessed.
4. No assessable work will be accepted after the return/release of marked work on the same topic. If a student is still permitted to submit on the basis of unavoidable disruption, an alternative topic may be set.
5. Students should keep an electronic file of all assessments. Claims regarding "lost" assessments cannot be made if the file cannot be produced. It is also advisable to keep an electronic file of all drafts and the final submission on a USB untouched/unopened after submission. This can be used to demonstrate easily that the assessment has not been amended after the submission date.
6. If you have evidence that your task has been incorrectly assessed against the grade descriptors you can request a re-mark. To request a re-mark you need to contact the unit convenor within 7 days of the date of return of the assignment and provide a detailed assessment of your script against the task criteria. Evidence from your assignment must be provided to support your judgements. Note: Failed assessments cannot be re-marked as they are all double-marked as a part of the moderation process. Please note: The outcome of a re-mark may be a higher/lower or unchanged grade. Grades are *standards*

referenced and effort is NOT a criterion.

7. The Department of Educational Studies Referencing Procedures must be adopted. These requirements are based on the APA style. Online guides are provided via the unit website to support students with their referencing.
8. Assessment feedback will be provided via the Gradebook on iLearn. Feedback will include the assessment of performance in relation to the assignment criteria as well as qualitative feedback in the form of comments. Overall student performance on assignments will be reported using a grade.
9. It is particularly important that students note that by submitting their assignment they are acknowledging that their work is original. Remember assignments must be your own work. If you have any questions about whether your approach would constitute plagiarism then please contact the convenor. Plagiarism is a serious offense.
10. Note that the way in which your assessment tasks are submitted will depend on the form of the assignment. Discussion posts will be assessed directly via your contributions to the topic assessment forums on the iLearn site. The ePortfolio posts will be submitted via an upload space made available within the respective topic on iLearn. The Independent Research Review should be submitted as a document via the Turnitin task submission box on iLearn.

University policy on grading

Criteria for awarding grades for assessment tasks

Assignments will be awarded grades ranging from HD to F according to guidelines set out in the University's Grading Policy. The following descriptive criteria are included for your information.

Descriptive Criteria for awarding grades in the unit

In order to meet the unit outcomes and successfully pass this unit, students must make a genuine attempt at all assessment tasks. Where any submitted assessment task is considered to be unsatisfactory in this regard, the highest possible final grade that can be awarded for the unit will be 45.

Students will be awarded grades ranging from HD to F according to guidelines set out in the policy: <https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policies/assessment-in-effect-from-session-2-2016>

The following generic grade descriptors provide university-wide standards for awarding final grades.

| Grade | Descriptor |
|-------|------------|
|-------|------------|

| | |
|---------------------------------|---|
| HD (High Distinction) | Provides consistent evidence of deep and critical understanding in relation to the learning outcomes. There is substantial originality and insight in identifying, generating and communicating competing arguments, perspectives or problem solving approaches; critical evaluation of problems, their solutions and their implications; creativity in application as appropriate to the discipline. |
| D (Distinction) | Provides evidence of integration and evaluation of critical ideas, principles and theories, distinctive insight and ability in applying relevant skills and concepts in relation to learning outcomes. There is demonstration of frequent originality in defining and analysing issues or problems and providing solutions; and the use of means of communication appropriate to the discipline and the audience. |
| Cr (Credit) | Provides evidence of learning that goes beyond replication of content knowledge or skills relevant to the learning outcomes. There is demonstration of substantial understanding of fundamental concepts in the field of study and the ability to apply these concepts in a variety of contexts; convincing argumentation with appropriate coherent justification; communication of ideas fluently and clearly in terms of the conventions of the discipline. |
| P (Pass). | Provides sufficient evidence of the achievement of learning outcomes. There is demonstration of understanding and application of fundamental concepts of the field of study; routine argumentation with acceptable justification; communication of information and ideas adequately in terms of the conventions of the discipline. The learning attainment is considered satisfactory or adequate or competent or capable in relation to the specified outcomes |
| F (Fail) | Does not provide evidence of attainment of learning outcomes. There is missing or partial or superficial or faulty understanding and application of the fundamental concepts in the field of study; missing, undeveloped, inappropriate or confusing argumentation; incomplete, confusing or lacking communication of ideas in ways that give little attention to the conventions of the discipline. |

Assessment Tasks

| Name | Weighting | Hurdle | Due |
|------------------------------------|-----------|--------|-----------------------|
| <u>Discussion</u> | 25% | No | End of each fortnight |
| <u>e-Portfolio</u> | 25% | No | End of each fortnight |
| <u>Independent Research Review</u> | 50% | No | 11:55pm 11th November |

Discussion

Due: **End of each fortnight**

Weighting: **25%**

Students will critically engage in discussion topics relevant to the unit, making a 300 word post each fortnight across ten weeks. See the unit website for further details including the assessment rubric.

On successful completion you will be able to:

- Demonstrate an understanding of how to integrate technology effectively into classroom

practice.

- Describe a range of contemporary technologies and critically evaluate their potentials for educational purposes.
- Critically evaluate and justify technology selection and design decisions with reference to current scholarly commentary, research and theory in pedagogy regarding technology in educational contexts.
- Explain in a broad sense how digital technologies impact on our social, cultural and educational lives.
- Model positive attitudes and social behaviours relating to the integration of technology within teaching and learning, including effective participation in collaborative processes.

e-Portfolio

Due: **End of each fortnight**

Weighting: **25%**

You will keep an e-portfolio of your learning in the form of posts in a blog to reflect on and practise the technologies and pedagogies discussed in the unit. The fortnightly posts should each be approximately 300 words (five in total). See the unit website for further details including the assessment rubric.

On successful completion you will be able to:

- Demonstrate an understanding of how to integrate technology effectively into classroom practice.
- Describe a range of contemporary technologies and critically evaluate their potentials for educational purposes.
- Critically review research literature and discourse relating to the use of technology for learning
- Critically evaluate and justify technology selection and design decisions with reference to current scholarly commentary, research and theory in pedagogy regarding technology in educational contexts.
- Explain in a broad sense how digital technologies impact on our social, cultural and educational lives.
- Model positive attitudes and social behaviours relating to the integration of technology within teaching and learning, including effective participation in collaborative processes.

Independent Research Review

Due: **11:55pm 11th November**

Weighting: **50%**

Students are to complete an independent research review that investigates an area of educational technology usage in-depth. Examples of possible topics include social networking, mobile learning, virtual worlds, digital games, cloud based applications, augmented reality, virtual reality, 3D printing and robotics, or any other emerging technology usage. Check with the convenor if you are unsure whether your selected topic would be valid. The investigation should synthesise research literature as well as other appropriate information sources to present a critical review of pedagogical practices in the domain. Students may also chose to collect real-world examples to demonstrate the ideas being discussed. The review is to be 1500 words in length (not including references) and students should include the word count at the bottom of their review. The assignment should be submitted to the assignment dropbox on the unit website. See the unit website for further details including the assessment rubric.

On successful completion you will be able to:

- Demonstrate an understanding of how to integrate technology effectively into classroom practice.
- Describe a range of contemporary technologies and critically evaluate their potentials for educational purposes.
- Critically review research literature and discourse relating to the use of technology for learning
- Critically evaluate and justify technology selection and design decisions with reference to current scholarly commentary, research and theory in pedagogy regarding technology in educational contexts.

Delivery and Resources

Introduction to Unit

EDUC706 Learning and Technology explores issues surrounding the integration of technologies into learning and teaching. It provides opportunities to consider theory in relation to practice, allows for the development of relevant skills (not necessarily technological), and encourages experimentation and evaluation of practices. It is also concerned with educational issues related to the use of technology in the classroom - the language involved, the pedagogies that are appropriate, and the new literacies associated with 21st Century learning.

The assessment tasks for EDUC706 focus on participants discussing, designing and researching technology-rich and real activities that can be used in working contexts, and on reflecting on the activities' pedagogical effectiveness, aligning this with contemporary literature. In this sense, the course aims to be practical but underpinned by learning theories. Further information about the curriculum for each topic is posted on iLearn, <http://ilearn.mq.edu.au>.

We plan to use the many opportunities of collaborating with each other throughout the session. We will also be drawing upon the expertise of the group in order to learn from each other and stay up-to-date. It is our aim to tailor the unit to your needs as far as is practicable and to this end we offer a flexible curriculum design and a wide range of choices for topics broached in

assessment tasks. We hope the unit proves to be a worthwhile experience for you and that it makes a significant contribution to your own, and indirectly, to your students' learning.

Note that in order to pass this unit you must have demonstrated that you meet the learning outcomes for the unit, by virtue of your performance in the assessment tasks.

Structure

EDUC706 is delivered as ten topics, starting in Week 3 and finishing in Week 12. The tasks and resources corresponding to each topic is available through Macquarie University's online learning management system iLearn <http://ilearn.mq.edu.au>. See the unit schedule below for the times and dates of each topic.

Webinar Times

There are ten 1-hour online webinars for this unit, with the first occurring on Monday in Week 3 and the last occurring on Monday in Week 12. Everyone is encouraged to attend. The collegiality and sharing of ideas creates valuable learning, and the sessions provide a valuable basis for your assessment tasks. The URL for the online web-conference will be <https://macquarie.zoom.us/j/6441331000>. The webinars are at 5pm each Monday as follows:

- Week 3: 5-6pm Monday 12th August
- Week 4: 5-6pm Monday 19th August
- Week 5: 5-6pm Monday 26th August
- Week 6: 5-6pm Monday 2nd September
- Week 7: 5-6pm Monday 9th September
- Week 8: 5-6pm Monday 30th September
- Week 9: 5-6pm Monday 7th October
- Week 10: 5-6pm Monday 14th October
- Week 11: 5-6pm Monday 21st October
- Week 12: 5-6pm Monday 28th October

Students should have completed the readings for each fortnight *before* the respective online tutorial.

Unit Readings

The required reading for this unit is:

Bower, M. (2017). *Design of technology-enhanced learning - Integrating research and practice*. London, UK: Emerald Publishing.

This reading is freely available from the library, and links are provided via the Leganto block on the right hand side of the iLearn website. If you would like to purchase your own copy at a discount to the Recommended Retail Price then details will be made available via iLearn.

Each topic contains a small selection of additional readings that you may choose to read, however, the expectation is that you will independently seek out and explore relevant readings

for each topic that are of particular interest to your context. For instance, you may decide to search for relevant research articles using [Google Scholar](#) and then source those articles via the [Macquarie University Library](#). These readings will form the basis of your assessment task submissions.

Technology Used and Required

The course requires access to a device with internet and word processing capabilities. Although this is a unit about technology in education, the aim is not to teach skills, but rather pedagogical approaches to technology in the classroom. However, participants are expected to have some prior knowledge of the technologies commonly used day-to-day.

Information about iLearn and Resources

Information for students about access to the online component of this unit is available at ilearn.mq.edu.au/login/MQ/. You will need to enter your student username and password. Please do NOT contact the Unit Convenor regarding iLearn technical help. No extensions will be given for any technical issues that are within your control. Allow enough time for your submissions. Assistance is available from IT Helpdesk ph: 1800 67 4357, or log a request at help.mq.edu.au. OneHelp is the online IT support service for both students and staff.

Workload

Before commencing EDUC706, please read this outline very carefully and ensure that you can meet all requirements. Students in this unit are expected to spend 150 hours (approximately 12 hours per week spread over session) studying EDUC706. 'Study' may include attending face-to-face sessions, completing recommended and online readings, working via the unit's iLearn site and undertaking assessment tasks. Please ensure that you have sufficient time to dedicate to your studies before attempting this unit. We are sympathetic that students often have significant domestic and work-related responsibilities. However, to be fair to our staff and to other students, these cannot typically be used to justify incomplete work or extension requests.

Contact

The best way to contact the unit convenor is by email at matt.bower@mq.edu.au. Communication must be via your Macquarie University student email account.

Unit Schedule

| S2 WEEK | COMMENCING | TOPIC |
|---------|--------------------|--|
| 3 | Monday 12/08/19 | Educational Technology Imperatives and the Technology Pedagogy & Content Knowledge (TPACK) Model |
| 4 | Monday 19/08/19 | Pedagogy and Technology-Enhanced Learning |

| | | |
|-----------------------------|--------------------|---|
| 5 | Monday 26/08/19 | Technology Affordances and Multimedia Learning Effects |
| 6 | Monday 02/09/19 | Representing and Sharing Content Using Technology |
| 7 | Monday 09/09/19 | Design Thinking and Learning Design |
| Mid-session break (2 weeks) | | |
| 8 | Monday 30/09/19 | Designing for Learning Using Online Technologies |
| 9 | Monday 07/10/19 | Designing for Learning Using Social Networking Approaches |
| 10 | Monday 14/10/19 | Designing for Mobile Learning |
| 11 | Monday 21/10/19 | Designing for Learning Using Virtual Worlds |
| 12 | Monday 28/10/19 | Technology-Enhanced Learning – Futures And Implications |

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central) (<https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central>). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- [Academic Appeals Policy](#)
- [Academic Integrity Policy](#)
- [Academic Progression Policy](#)
- [Assessment Policy](#)
- [Fitness to Practice Procedure](#)
- [Grade Appeal Policy](#)
- [Complaint Management Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#) (**Note:** *The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.*)

Undergraduate students seeking more policy resources can visit the [Student Policy Gateway](https://students.mq.edu.au/support/study/student-policy-gateway) (<https://students.mq.edu.au/support/study/student-policy-gateway>). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit [Policy Central](http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central) (<http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central>).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/study/getting-started/student-conduct>

Results

Results published on platform other than [eStudent](#), (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Department of Education Policies and Procedures

In addition, the following policies and procedures of the Department of Educational Studies are applicable in this unit.

Unit Expectations

- Students are expected to read weekly readings before completing tasks and attending tutorials

Note: It is **not** the responsibility of unit staff to contact students who have failed to submit assignments. If you have any missing items of assessment, it is your responsibility to make contact with the unit convenor.

Electronic Communication

It is the student's responsibility to check all electronic communication on a regular weekly basis. Communication may occur via:

- Official MQ Student Email Address • Other iLearn communication functions

Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- [Workshops](#)
- [StudyWise](#)

- [Academic Integrity Module for Students](#)
- [Ask a Learning Adviser](#)

Student Services and Support

Students with a disability are encouraged to contact the [Disability Service](#) who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

If you are a Global MBA student contact globalmba.support@mq.edu.au

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

PG - Capable of Professional and Personal Judgment and Initiative

Our postgraduates will demonstrate a high standard of discernment and common sense in their professional and personal judgment. They will have the ability to make informed choices and decisions that reflect both the nature of their professional work and their personal perspectives.

This graduate capability is supported by:

Learning outcomes

- Demonstrate an understanding of how to integrate technology effectively into classroom practice.
- Describe a range of contemporary technologies and critically evaluate their potentials for educational purposes.
- Critically review research literature and discourse relating to the use of technology for learning
- Critically evaluate and justify technology selection and design decisions with reference to current scholarly commentary, research and theory in pedagogy regarding technology in educational contexts.
- Model positive attitudes and social behaviours relating to the integration of technology within teaching and learning, including effective participation in collaborative processes.

Assessment tasks

- Discussion
- e-Portfolio
- Independent Research Review

PG - Discipline Knowledge and Skills

Our postgraduates will be able to demonstrate a significantly enhanced depth and breadth of knowledge, scholarly understanding, and specific subject content knowledge in their chosen fields.

This graduate capability is supported by:

Learning outcomes

- Demonstrate an understanding of how to integrate technology effectively into classroom practice.
- Describe a range of contemporary technologies and critically evaluate their potentials for educational purposes.
- Critically review research literature and discourse relating to the use of technology for learning
- Critically evaluate and justify technology selection and design decisions with reference to current scholarly commentary, research and theory in pedagogy regarding technology in educational contexts.

Assessment tasks

- Discussion
- e-Portfolio
- Independent Research Review

PG - Critical, Analytical and Integrative Thinking

Our postgraduates will be capable of utilising and reflecting on prior knowledge and experience, of applying higher level critical thinking skills, and of integrating and synthesising learning and knowledge from a range of sources and environments. A characteristic of this form of thinking is the generation of new, professionally oriented knowledge through personal or group-based critique of practice and theory.

This graduate capability is supported by:

Learning outcomes

- Demonstrate an understanding of how to integrate technology effectively into classroom practice.

- Describe a range of contemporary technologies and critically evaluate their potentials for educational purposes.
- Critically evaluate and justify technology selection and design decisions with reference to current scholarly commentary, research and theory in pedagogy regarding technology in educational contexts.

Assessment tasks

- Discussion
- e-Portfolio
- Independent Research Review

PG - Research and Problem Solving Capability

Our postgraduates will be capable of systematic enquiry; able to use research skills to create new knowledge that can be applied to real world issues, or contribute to a field of study or practice to enhance society. They will be capable of creative questioning, problem finding and problem solving.

This graduate capability is supported by:

Learning outcomes

- Critically review research literature and discourse relating to the use of technology for learning
- Critically evaluate and justify technology selection and design decisions with reference to current scholarly commentary, research and theory in pedagogy regarding technology in educational contexts.

Assessment tasks

- Discussion
- e-Portfolio
- Independent Research Review

PG - Effective Communication

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:

Learning outcomes

- Explain in a broad sense how digital technologies impact on our social, cultural and

educational lives.

- Model positive attitudes and social behaviours relating to the integration of technology within teaching and learning, including effective participation in collaborative processes.

Assessment tasks

- Discussion
- e-Portfolio

PG - Engaged and Responsible, Active and Ethical Citizens

Our postgraduates will be ethically aware and capable of confident transformative action in relation to their professional responsibilities and the wider community. They will have a sense of connectedness with others and country and have a sense of mutual obligation. They will be able to appreciate the impact of their professional roles for social justice and inclusion related to national and global issues

This graduate capability is supported by:

Learning outcomes

- Explain in a broad sense how digital technologies impact on our social, cultural and educational lives.
- Model positive attitudes and social behaviours relating to the integration of technology within teaching and learning, including effective participation in collaborative processes.

Assessment task

- e-Portfolio

Changes from Previous Offering

- The structure of the unit has been adjusted so that there are ten weekly 1 hour webinars (starting Week 3 of session) rather than six fortnightly 2 hour webinars.
- The content of the unit has been updated to reflect changes to educational technology tools, practices and research.
- There have been slight adjustments to the assessment weightings of tasks.
- We may be joined by non-Macquarie students completing micro-credential modules, which should add richness to the discussion and perspectives.

Educational Philosophy

The general educational philosophy of the unit is outlined below. It is offered here to give you an understanding of the basis on which decisions about the unit have been made.

1. Each of you comes to the unit with a different background and different expectations. We

hope to draw on your experiences as a resource for learning that can be shared with others so that we can contribute to and gain from each other's knowledge, experience and research activities. All of us, as participants, are teachers and learners.

2. We try to give you room for choice so that you can individualise your learning experiences as much as possible, particularly in relation to assessment.
3. As staff, we see our role as providing you with a framework for a unit of study in which we act as facilitators who make known the range of available resources and strategies to enable the exploration of options in your chosen areas of study. Our role includes:
 - providing guidelines for independent study by participants
 - acting as a sounding board to assist participants to clarify their thinking and make decisions about their personalised programs
 - being a resource person for the group and sharing skills, knowledge and experience where appropriate with the participants
 - suggesting criteria by which work is to be evaluated and applying these criteria in evaluating your work
 - encouraging you to engage in critical thinking and reflection, appropriate to postgraduate study.
4. We want you to experience a diversity of approaches in the organisation of your learning experiences. To achieve this goal, the unit will include the opportunity to work individually as well as collaboratively.
5. We have found the effectiveness of learning is increased when participants reflect on their own learning. You will, therefore, have opportunities to evaluate your own learning during the unit.
6. Students are encouraged to recognise the opportunities provided by this unit for developing their generic skills in:
 - Foundation skills of literacy, numeracy and information technology
 - Self-awareness and interpersonal skills, including the capacity for self-management
 - Collaboration and leadership
 - Communication skills for effective presentation and cultural understanding
 - Problem-solving skills to supply and adapt knowledge to the real world
 - Critical analysis skills to evaluate, synthesise and judge

- Creative thinking skills to imagine, invent and discover