Unit Information and Learning Guide

Extract from Unit Guide developed by Jan Herrington

ICT in the classroom

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Introduction

Unit overview

Welcome to *ICT in the classroom*.

The focus of this unit is learning with information and communications technologies (ICTs). It is designed as a general elective for those interested in using ICTs in schools (K-12), post-secondary institutions such as TAFE colleges or universities, as well as training establishments.

You will be given the opportunity to consider a variety of educational questions related to the use of ICT in schools and other educational or training institutions, as well as the opportunity to develop some expertise with basic practical teaching skills in this area. The unit is not intended to concentrate on technical matters of how to use particular computer systems, either at home or at school. It is not aimed specifically at those who wish to teach primary or secondary school ICT units, but instead aims to provide an introduction to the use of technologies as powerful tools for learning every day in all subject areas.

Prerequisites

You will need to have completed at least one Part II education unit, or equivalent. There are no other unit prerequisites. In particular, the unit assumes no formal background in computing. We assume that you are already familiar with your own computer system, as we are unable to provide extensive, detailed technical support or advice about particular configurations of computer hardware and software. (You will of course have access to the University IT Help Desk.)

Aims and objectives

Unit aims

The main purpose of the unit is to give initial teacher education students in the primary, secondary and post-secondary programs the opportunity to consider critically a range of issues of concern to all teachers who use ICT in their classrooms, such as:

- What are some appropriate uses of ICT in our classrooms?
- Who has access to ICT in the classroom (students. or only the teacher)?
- In what ways does a use of ICT require us to reconsider curriculum issues?
- What are the educational implications of technologies such as online learning and the Internet?
- How can participatory elements of the web be used to facilitate learning?

The unit may also be of relevance to undergraduates in other areas, such as those interested in developing websites for educational use. However, the primary orientation of the course will be towards those who are, or intend to be, teachers in schools. The unit is not appropriate as the first Part II unit in education for intending teachers. Students interested in ICT, but not interested in the study of education or the practice of teaching, are unlikely to find the unit suitable for their study.

Learning objectives

On successful completion of the unit you should be able to:
1. Explain some of the major issues in ICT in education;
2. Use major applications such as word processing, presentation or web tools to design a significant unit of work for education;
3. Have an appreciation of key issues in the design, implementation and evaluation of 'elearning' and 'mlearning' (mobile learning) environments.

How to study this unit

The unit is task-based, so by completing the tasks, you complete the unit. There are no lectures in this unit. The LMS provides valuable online resources, together with links to other sites and services needed to complete the tasks. Discussion forums on the LMS will also assist your learning.

The online support in the LMS has several purposes:
- Facilitate student-student and student-tutor communication. The online support will help overcome communication difficulties, and so we urge you to take advantage of it, particularly the discussion, mail, and Skype chat facilities.
- Provide access to a range of up-to-date and relevant resources.
- As a future teacher, provide you with direct, personal experience of Internet-based learning.

We strongly advise you to familiarise yourself with the LMS early in the unit, and to seek help early in case of any technical difficulties. Please be aware that the LMS allows the Unit Coordinator to monitor the extent and nature of your participation with LMS.

To access LMS, first you will need to access *My Units.* You can also access LMS directly through the Welcome Page for this unit. If you have difficulties connecting the first time, after consulting the online help, please call the IT helpdesk, not your tutor. We suggest you spend some time early in the unit exploring the many learning opportunities provided by the LMS site, so that you can use them efficiently later.

Learning activities

Learning activities are based on the assignment tasks, and on the activities and support provided in the unit LMS.

Time commitment

This is a 4 credit point unit, we expect you to spend on average 16-17 hours / week for the 12 weeks of this teaching period (or 200 hours overall) working on this unit.

Study schedule

Because of the nature of the unit tasks, you will work largely to your own schedule. However, the schedule below is a good indication of the weeks you might devote to the unit tasks, as you will need to meet the assignment deadlines.

#	Activities	Assignment	Due
1.	Introductions, background Discussions, MyUnit overview Begin readings & activities for Task 1		
2.	Discussion topics – Readings 1, 2, & 3 Task 1: Design and implement a web site		
3.			
4.		Assignment 1 due	Friday Week 4
5.	Discussion topics – Readings 4, 5, & 6 Task 2: Research trends and issues and online presentation		
6.			
7.			
8.		Assignment 2 due	Friday Week 8
9.	Discussion topics – Readings 7 & 8 Task 3: Plan and prepare an authentic learning unit of work		
10.			
11.			
12.		Assignment 3 due	Friday Week 14

Resources for the unit

Computing resources

You will need access to a computer and the Internet to study this unit.

In particular, you will need:

- PC or Mac computer (or access to one),
- Internet access
- Web camera and audio (or access to a computer with these facilities)
- A suite of software programs including word processing, spreadsheet and presentation program, such as Microsoft Office (Word, Excel, PowerPoint) or Apple iWork (Pages, Numbers, Keynote)
- Access to library databases, such as EdIT digital library at http://prospero.murdoch.edu.au/search~S10?/se/se/1%2C52%2C54%2CB/eresource&FF=seditlib&1%2C1%2C or direct at http://www.editlib.org) and others such as Proquest and ERIC.

Unit materials

To undertake study in this unit, you will need:

Essential textbook	There is no compulsory textbook for this unit.
Other references	Optional texts: There are a couple of excellent books that you might like to borrow or buy that can assist your learning in this unit. • Jonassen, D., Howland, J., Marra, R.M., & Crismond, D. (2008). *Meaningful learning with technology.* (3rd ed). New Jersey: Pearson Prentice Hall. • Shelley, G. B., Cashman, T. J., Gunter, R. E. & Gunter, G. A. (2008). *Teachers Discovering Computers: Integrating technology and digital media in the classroom* (5th ed) Boston: Thomson.
Online resources	Your Online Unit and other resources can be accessed from your MyUnits page. WA students are encouraged to download copies of Curriculum Framework documents to support their learning, from the website of the Curriculum Council of Western Australia: http://www.curriculum.wa.edu.au/internet
Library resources	The following key journals are available electronically: • *Australasian Journal of Educational Technology:* http://www.ascilite.org.au/ajet/ajet.html • *Educational Technology Research and Development.* Available through the university library through Proquest. • *Association for the Advancement of Computing in Education* (AACE) journals: http://www.editlib.org (Full text available through EdIT in university library database)

Assessment

Assessment components

You will be assessed on the basis of:

Assignment	Description	Value	Due
Assignment 1	Design and implement a website to use as a vehicle to showcase a unit of work in your area of teaching	25%	End of Week 4
Assignment 2	Research ICT trends and issues in the pedagogical use of technology in your area of teaching	35%	End of Week 8
Assignment 3	Plan and present of a unit of work based on authentic learning principles using ICT in your area of teaching	40%	End of Week 14

Assessment details

The assignments for this unit centre around the topic: *Teaching and learning X with current and future ICTs* where X might be (for example):

- primary school reading *or*
- secondary school history *or*
- middle school science *or*
- undergraduate nurse education *or*
- early childhood creative arts *or*
- any area of professional interest.

Make sure that you choose a topic that is relevant to your interests in teaching and learning.

Context

Imagine your school is preparing to integrate ICT more fully in the classroom and you have been asked to create a website to present a unit of work to your colleagues describing how you would implement ICT in your classroom for your area of teaching.

Support resources

There are a number of support resources on MyUnits that will assist you with your learning and help you complete the assignment tasks:

- example assignments from previous students
- marking criteria for all assignments
- links to online tutorials
- discussion forums where you can ask questions and share your ideas with your peers
- instructions about how to join the unit social groups (e.g., Skype, Diigo and Google Docs)

Marking Criteria and assignment submission

Download and read the Assignment Coversheets and Marking Rubrics to ensure you have completed all essential requirements for each task. Complete the coversheet and submit it on the LMS.

Assignment 1 – Design and implement a web site (25%)

Task

Research the affordances of free web creation technologies to determine which technology best suits your needs in your chosen area. Identify some of the key design and implementation issues you will need to consider for developing your web site and write a brief report summarising your findings. Explore some of the technologies available for communicating and collaborating online with your students. Immerse yourself in the context and imagine your colleagues would visit your website for gather ideas about setting up their own web sites.

Specifically, you need to:
1. Research the affordances of free web creation technologies and determine which technology best suits your needs.
2. Create a web site using your selected technology and add the following pages and information:
   a. Home page – Teaching area, year level, topic outline
   b. About Me page – Bio, photo, email, Skype button
   c. Resources page – Design and implementation issues PDF file (point 3) and hyperlinks to the unit groups (points 4, 5 & 6)
3. Identify some of the key design and implementation issues you will need to consider for developing your website. Write a brief report summarising your findings (maximum 2 pages) and attach it as a PDF file to your *Resources* page (resources and tutorials on MyUnits).
4. Join the unit Skype chat group and add a "Skype Button" to your *About Me* page. (tutorials on MyUnits).
5. Join the unit Diigo social bookmarking group and add a hyperlink to the Diigo group to your *Resources* page (tutorials on MyUnits).
6. Access the unit Google Doc file "*Assign 1 My website"*, type in your website URL in the column next to your name and add a hyperlink to this file to your *Resources* page (tutorials on MyUnits).

Creating your web site

Create your web site using one of the following:
- A website (e.g., using weebly, yola, or iWeb, etc)
- A wiki (e.g., using googlesites, wikispaces, pbworks, etc)
- Another online form of your own choice negotiated with your tutor.

Preparing your web site

Ensure you clearly introduce your area of teaching and identify your target audience. Provide a brief overview of the topic your unit of work will focus on. You do not need to provide detailed information at this stage. As you develop your unit of work you may want to revisit and modify your original outline.

Assignment 2 – Research ICT Trends and Issues (35%)

Task

Research what ICT other teachers are using in your area of teaching, create a 10 minute slideshow, and deliver it as a virtual online video presentation. Immerse yourself in the context and imagine you are delivering your presentation live to your colleagues at a teaching forum.

Specifically, you need to:

1. Research the latest trends and issues for using ICT in your teaching area and prepare a 10 minute PowerPoint or Keynote slideshow.
2. Use at least one of each of the following resources to research your topic:
   a) **Article** - Use the library's databases, such as ERIC and ProQuest, to find an education journal article, dated 2000 or later, on the topic you've chosen.
   b) **Website** - Use a search engine such as Google to find a website relevant to the topic you've chosen
   c) **Audio Podcast** - Use a search engine such as Google to find a relevant audio podcast on sites such as iTunes or the ABC's EdPod site
   d) **Video clip** - Use a search engine such as Google to find a relevant video clip on sites such as such as YouTube or TeacherTube
3. Deliver your slideshow as a virtual presentation by publishing it as an online video that includes audio narration and video footage of yourself.
4. Add a Slideshow page to your website, attach your PowerPoint or Keynote file and embed a copy of (or add a hyperlink to) your video presentation.

Preparing your slideshow

Ensure you clearly introduce the topic of your presentation and include a screen capture (image) of each of the four resources you located and include URL hyperlinks. Summarise the main points and strengths and weakness of each resource you find. Use the notes field (in the PowerPoint or Keynote software) to explain each slide in more detail. Discuss some of the implications for integrating these ICT in your teaching area and include specific examples to illustrate how ICT could be used to change your current teaching practice. Abide by copyright laws and acknowledge all third party resources and information using in-text citations. Include a final slide listing all your references (APA 6th style) so that your colleagues can follow up your sources.

Delivering your presentation

Once you have completed your PowerPoint or Keynote slideshow you need to create a video and publish it online. Ensure YOU are included in the video and that your narration explains your slides in greater detail. DO NOT simply read the information on your slides word by word.

Create your video using one of the following and publish it online:
- an online presentation technology (e.g., www.present.me, etc)

- a web conferencing technology (e.g., www.WiZiQ.com, Wimba, etc)
- a desktop application (e.g., Camtasia Studio - free 30 day trial download) and publish it to a video website (e.g., www.youtube.com or www.screencast.com etc)
- Another online video form of your choice negotiated with your tutor.

Assignment 3: Authentic learning unit of work (40%)

Task

Prepare a unit of work to demonstrate to your colleagues how you would use ICT in your classroom for your area of teaching. Immerse yourself in the context and write to suit your target audience; teachers. Ensure your plans and instructions are clear and easy to follow and include sufficient details, resources and supports to allow another teacher to implement your unit of work in their own classrooms.

Specifically, you need to:
1. Draw on your background research (including, but not only, materials for Assignment 2) to plan a unit of work in your area of interest (e.g., primary science, Year 11 mathematics, tax law at TAFE).
2. Concentrate on the educational issues in using ICT. Consider recent technical developments only to the extent that they might influence teaching and learning.
3. Focus on the use of technology as cognitive tools, where the students– rather than solely the teacher–use the technology.
4. Consider recent technical developments *only* to the extent that they might influence teaching and learning.

Preparing your unit of work

Plan work to engage students over a period of 2-3 weeks (i.e., not just a single lesson or two). Plan the tasks, resources and supports so that another teacher could use them to implement your unit of work. Provide example resources that the teacher would provide to students to complete the unit of work. Abide by copyright laws and acknowledge all third party resources and information using in-text citations. Include a complete listing of all your references (APA 6th style) so that your colleagues can follow up your sources.

Presenting your unit of work

Present your unit of work on the website or wiki you created for Assignment 1. Add as many pages as you need to ensure your plans, instructions, resources and supports can be easily identified and accessed by others. Ensure you consider the web design issues you identified in Assignment 1 to produce a polished and professional looking website.