

# Guidelines for JISC project teams on capturing and presenting case studies of exemplary practice

## 1. Introduction

Much of the knowledge gained from the capture and description of examples of exemplary practice as part of a JISC-funded study is lost once the outcomes are reported, only to be recreated when the next series of case studies is commissioned. These guidelines have been developed in response to the need to accumulate and document effective approaches to case study development, drawing on experience gained from case study projects commissioned by the JISC e-Learning programme since 2004.

The points raised are not considered definitive. Further guidelines may be added in the light of new ways of disseminating exemplar practice – the aim is to develop an updatable toolkit which JISC programme managers and project teams can access and expand on over time.

## 2. What is a case study?

### 2.1 Definition

Project teams engaged in e-learning studies are frequently asked to produce externally facing outcomes such as case studies in addition to a final report, yet the meaning of the term is not necessarily understood in the same way across the post-16 and higher education sector. Defining what is understood by a case study is therefore a valuable starting point for discussions between project teams and programme managers.

Fortunately there are now many examples of case studies of e-learning practice in existence to provide guidelines. Sampling these suggests that a case study is likely to:

- focus on an individual initiative or example of practice
- outline the context and background to the work e.g. its relationship to a preceding project or response to a nationally or locally identified strategy, need or purpose
- give an account of *what, why, when, where* and *for whom* the practice was developed, including the intended outcomes, the nature of the participants, the environment in which it occurred, and the technologies used
- provide a narrative of how the initiative was implemented to explain the processes involved
- evaluate outcomes
- locate the described practice within the broader context – for example, by giving the stage of development at which the case study was captured and indicating future plans
- draw out features of the initiative that make it significant – for example, innovation, focus on the needs of particular learner groups, evidence of impact, realisation of a strategic initiative, lessons learned
- summarise steps to be taken by those wishing to replicate the practice
- identify quick and accessible gains for others – for example, by highlighting ‘tips and tricks’ or the ‘e-learning advantage’
- include learning objects used in the original activity to provide ‘off the shelf’ learning designs where appropriate
- reveal personal insights and statements from those involved

Not all of these characteristics will be evident in all cases i.e. these descriptors do not represent a template to be followed in all instances, but rather a set of benchmarks against which to determine what is most appropriate in any one particular case.

### 2.2 Purpose

The characteristics listed here suggest that the main aim of a case study is to share experiences and disseminate what has been significant about the processes or outcomes.

The overriding purpose therefore behind an exemplar of practice may be to communicate the perceived value of the experience or initiative to others in order to extend their understanding and expertise and add/or to their repertoire as practitioners.

Other recent definitions of a case study □ for example ‘the study of the particularity and complexity of a single case’ (Stake 1995); ‘an intensive study of a single unit with an aim to generalise across a larger set of units’ (Gerring 2002) and ‘a rich picture of a complex situation’ (Beetham 2006) □ emphasise the opportunities for in-depth analysis that a case study offers, and suggest the potential for wider application supported by the lessons learned from the original implementation. Beetham (2001)<sup>1</sup> further suggests that most of what we know about how others teach – and therefore understand about what is effective or ineffective – is gained from indirect accounts, such as case studies and other representations of practice, rather than from direct observation. These points underline the importance of identifying aspects of the practice that are most likely to build the capacity of the audience for whom the case study is primarily intended, so that experience-based knowledge can be more effectively exchanged. Case studies in fact are likely to have a significant role to play in staff development although they may be viewed by project teams as a tool for research. A balance must be struck between the systematic acquisition of information and the readability and accessibility of the end product to a wider audience, since a JISC-funded case study enquiry is likely to encompass both requirements.

A broad overview of case studies suggests that at the micro level there are many differing approaches to case study production. Differing perceptions of audience and purpose, and different routes to disseminating the outcomes, result in differing emphases and although it might be argued that all case studies have a common aim of communicating significant outcomes for the benefit of others, each example is likely take a slightly different format, depending on factors such as its intended **purpose**, perceived **audience** and **context of use**.

### 2.3 Format

The table below gives some indication of how the format, including the length, perspective and ‘voice’, or tone, of a case study, can be influenced by the key factors of **purpose**, **audience(s)** and **context of use**. The examples are provided as illustration of how varied case study formats can be and indicate likely, rather than definitive, results:

<b>Purpose</b>	<b>Context of use</b>	<b>Audiences</b>	<b>Format/content/perspective</b>
Provide a record of a process and its outcomes	Project report	Research and development community	Likely to be: detailed, objective, comprehensive, formal in tone and layout
Highlight individual perspectives	Podcasts or video clips	Managers and practitioners in post 14 and higher education sectors; JISC Services and RSCs	Likely to be: subjective, short, informal, insightful but partial
Illustrate targets	Strategy document	Policy drivers and decision makers	Likely to be: concise, formal, focused on one aspect
Build capacity in others	Staff development resources	Practitioners, learning technologists, champions, software and systems developers	Likely to be: detailed, explanatory, supportive in tone and accessible in language and format; available in multiple formats for different audiences and contexts
Provide ‘runnable’ learning designs for a community of practitioners	Within a package of related resources located on a portal or Subject Centre	Practitioners, learning technologists, champions	Likely to be: detailed, explanatory, supportive in tone and accessible in language and format

<sup>1</sup> [www.eres.ac.uk/source/docs/pub-ou-47.pdf](http://www.eres.ac.uk/source/docs/pub-ou-47.pdf)

	website		
Celebrate achievement	Publicity surrounding an award	Practitioners, learning technologists, champions, software and systems developers	Likely to be: inspirational and promotional, as well as explanatory
Increase understanding of the potential of a particular technology or group of technologies	Effective Practice publication	Managers and practitioners, learning technologists, champions	Likely to be: detailed, explanatory, supportive in tone and accessible in language and format, identifying risks as well as benefits; available in multiple formats
Capture evidence of impact	Impact study	Managers, practitioners, decision makers and researchers	Likely to be: detailed, objective, formal, containing data as well as description
Generate discussion as part of a wider process or enquiry	Virtual or face-to-face forum	Peers	Likely to be: informal, unstructured, open ended; focused on specific subject discipline and employing language specific to that group

#### **Recommendation**

Perhaps a case study is ultimately what it needs to be to illustrate what is important for a particular purpose. What is clearly important, however, is that intentions about purpose, audience(s) and means of publication are clarified between the programme manager and project teams at the outset of a case study investigation, so that the outcomes have an appropriate level of detail and provide the content and approach appropriate for subsequent use by JISC.

#### **2.4 Researching formats**

Some examples of text-based case studies are given in full in Appendix A to illustrate differences in approach ensuing from different perceptions of audience and purpose and as a result of disseminating the material through different channels. The examples have been drawn from:

- JISC (2008) DeL Regional Pilot stories, published online
- Higher Education Academy (2005), published online as a downloadable Word document
- JISC infoNet (2007) Tangible benefits of e-learning, published online
- JISC (2005) Innovative Practice with e-Learning, published online as a downloadable Word or PDF document and from the CD-ROM within a publication. A shortened version of the same case study forms part of the print publication.

What is included in these guidelines is necessarily text based. To explore a fuller range of approaches and formats, links are given in the **Further information** section to additional examples. These include case studies in multimedia – for example, video case studies or narratives in which multimedia elements such as audio files have been embedded. It is by no means the case that case studies are routinely text based and intended to be read by their audiences on screen or in print. Use of multimedia and alternative formats can extend the appeal, reach and impact of a case study.

#### **Recommendation**

Consider discussing a selection of examples of case studies during a project start-up meeting to determine the approach that would be most appropriate in your case.

## 3. Capturing case study material

### 3.1 Locating material

Whatever format a case study takes, it will need to be:

- worthy of scrutiny i.e. relevant, up to date and of sufficient standing
- engaging and different from other examples
- informative at a level appropriate to its purpose, audiences and context of use
- fit for purpose i.e. meeting criteria relevant to the individual project – for example, use of particular technologies, illustration of pedagogic approaches or evaluation techniques

Finding suitable material can mean seeking out emerging rather than well known examples of practice to ensure that the case study is able to engage the interest of both a broadly based *and* an expert audience. Networks which may prove useful in the search for suitable material include:

- JISC Regional Support Centres [FE &HE]
- Other JISC services e.g. JISC infoNet, JISC CETIS, JISC TechDis [HE, possibly also FE]
- Higher Education Academy Subject Centres [HE]
- ILT Champions mailing list [FE]
- JISC Learning and Teaching Practice Experts Group [FE & HE]
- Heads of e-Learning Forum [HE]
- ALT [HE & FE]
- CETLs [HE, England]

Your JISC programme manager may be able to help you select the right network and gain access to closed mailing lists.

#### **Recommendation**

Locating appropriate case study material is unlikely to be achieved quickly. An appropriate allocation of resources – including time – to this stage of the project is vital to its overall success.

### 3.2 Approaching participants

Guidelines produced by the JISC Learner Experiences of e-Learning programme<sup>2</sup> for researchers into learners' experiences provide some important pointers for researchers of case study material in general. These are especially relevant whenever learners' perspectives on an initiative are required, but not exclusively so.

A selection of key points from the guidelines is given here.

#### **Guidelines for external researchers:**

- Identify the most appropriate contact person at the institution to gain access to other interviewees, for example, practitioners and learners
- Consider including in your enquiry those likely to give a range of responses – for example, representatives of different subject disciplines or types of learner
- Explain the experiences and insights that are appropriate for your study
- Seek participants' agreement to be involved and explain the rationale for the work
- Outline how their contributions might be used
- Maintain the right level of contact to establish and confirm participants' involvement, including clear instructions about the date, time and place of interviews if conducted face-to-face.
- Personalise correspondence to build rapport

<sup>2</sup> [www.jisc.ac.uk/learnereval](http://www.jisc.ac.uk/learnereval)

- Explore techniques for recording information that participants will find natural and unobtrusive
- Provide participants with a draft of the interview write-up to confirm its accuracy and appropriateness and request permission to use personalised quotes
- Thank those who participated
- Involve all concerned in the results of the research, alerting them when the project outcomes are published

#### **Recommendation**

Making the procedures and protocols you will follow transparent to participants is an important first step in preparing for case study capture. While overloading participants with information is undesirable, a short account of the interview procedures, including an outline of the right of participants to see and amend the outcomes will encourage willingness to participate.

### **3.3 Capturing material**

A template for capturing content for case studies is included in Appendix B. This has been designed to generate a comprehensive and balanced body of information from which selections can be made for different purposes and contexts of use.

While the breadth of material this template generates is likely to support the development of a full and detailed case study, there are some caveats relating to the use of templates. Firstly, it may be necessary to adapt the template to focus on areas appropriate to your project. Adhering too rigorously to a predetermined approach can hinder the capture of unexpected but significant aspects of the practice, such as personal experiences and views and unforeseen outcomes. Secondly, passing on the template to participants to complete themselves is likely to produce negative results if the template is viewed as time consuming and over complex.

A possible approach is for the interviewer to use the template as a prompt when conducting a phone or face-to-face interview and to allow the interviewee to dictate the agenda once background information has been established. Use open-ended questions that are likely to elicit a full response. For example, 'Tell me about the thinking behind your work' allows the respondent to talk about what was important to them. 'Was the project designed to achieve x or y', on the other hand, reveals the interviewer's agenda and limits the potential answer.

Ensure that details of the main contact at the institution are accurate to enable any subsequent enquiries about the material to be swiftly resolved. Background information about the institution is best obtained during the interview, since descriptions of the institution, its function and performance given on its website may be out of date and are likely to be written from a marketing perspective.

#### **Recommendation**

In a context in which everything is sharable and searchable via the web, case studies are likely to be accessed by a far wider audience than might have been initially considered. Provide a synopsis of essential data at the head of each case study in the series to enable those accessing the case study over the web to understand at a glance what it is about. Essential fields of information include: title; organisation; subject, level and type of practice; identifying features of the learners e.g. age, full time, part time, face to face, distance; themes; summary of outcomes; appropriate keywords ( see 4.3 below).

### 3.4 Obtaining consent

Multimedia elements and quotations give a richer and more rounded impression of the practice and enliven the experience for readers. However, consent is required from any individuals depicted or recorded.

For example, if podcasts, digital photographs or videos are to be included with the case study, consent forms should be signed by each individual recorded or featured as the main subject. These should be obtained in hard copy and kept by the project team on behalf of JISC. Consent given later by email does not provide sufficiently robust evidence of a participant's consent.

A consent form template is included in Appendix C.

Permission to use quotations from individuals, either spoken or written, must also be obtained. Retain emails that indicate agreement that an individual's exact words have been quoted.

#### Recommendation

The underpinning principle behind all case study enquiries should be respect for participants. When asking individuals to be involved in your research, it is important to recognise the personal and cultural reservations they may have about being represented in digital images or on video. It is best practice to invite potential participants to opt *into* the activity and respect decisions not to do so.

### 3.5 Confirming content

Once the draft of the interview content is completed, forward this to the interviewee to obtain confirmation that the practice has been accurately described and that the representation of salient messages is in line with the view of those involved. At this point, emphasise for participants that they can include further information omitted at the time of the interview and itemise additional resources that might accompany the case study, for example, lesson plans, images and other learning objects – see 4.2 below.

The timeline for a project involving case studies needs to make realistic allowances for email traffic between the developer and participants. Version control is also vital whenever a number of case studies are being produced simultaneously, or if the team comprises several members working remotely from one another.

#### Recommendation

Your enquiries may coincide with heavy workloads for staff in the case study institution. It is important to provide a clear but realistic deadline for return of the draft text and to be flexible and courteous in your dealings with the institution. Providing clear instructions for an agreed single point of contact within the institution is the most effective way forward.

## 4. Publishing case studies

### 4.1 Audience awareness

Since case studies are primarily concerned with communicating the value of an activity to others, as much attention has to be given to the expectations and needs of likely audiences as to representing the practice fairly and fully. Understanding audience expectations and needs is vital when making decisions about how to publish a case study.

If the purpose behind a case study is to develop understanding of e-learning by practitioners, a Typology of Effective Interventions that Support e-Learning Practice<sup>3</sup>, Sharpe, R. (2004) provides some helpful guidelines. The author suggests that support for practitioners in

<sup>3</sup> [www.jisc.ac.uk/uploaded\\_documents/typology%20v3.1.doc](http://www.jisc.ac.uk/uploaded_documents/typology%20v3.1.doc)

developing e-learning practice of their own should take different forms 'in response to varying patterns of need, interest and context'. This variation in audiences' responses to materials suggests that multiple formats may sometimes be desirable, with the added advantage that alternative routes to information also make it easier for individual users to access the material.

- Users vary in the level of detail they want to receive and in the amount of time they have available. Thus it is good practice to provide different levels of content and different routes by which the case studies can be accessed: for example, short focused narratives for easy reading are appropriate for some purposes or audiences. These can be backed up by detailed versions offering more information – for example, on the technologies used or techniques for successful implementation. Longer versions can be made available as PDF or Word files from a CD-ROM or from the web
- If the case study is directed towards a subject specific audience, consider whether aspects of the material can be made relevant to practitioners in other subject disciplines – for example, by adding generic points of advice at the conclusion. The detail of the case study will be essential for practitioners working in that subject discipline, but the potential that some key aspects may be relevant to those working in other subject disciplines should not be overlooked
- Making case studies available on the web or on a CD-ROM as separate files adds value to their usability – case studies which address different issues or types of technology can then be selected by educational/staff developers to target the needs of particular client groups
- It may also be beneficial to publish the completed capture documents on the web alongside case studies, since evidence of the methodologies that have been used offer additional value to researcher and advanced practitioner audiences

#### **Recommendation**

Purpose, context and audience need to be considered at an early stage in the project so that if different formats are required, these can be built into the project plan and timeline. In addition to the primary audience, the case studies are likely to be accessed over the web by a far wider community of e-learning researchers and practitioners and the formats in which they are published will need to be accessible to as wide a community as possible.

#### **4.2 Accessibility and readability**

Accessibility for readers with disabilities is now required by law. However, attention to accessibility benefits all users, including those who are disabled. The key elements in making published case studies accessible for users are:

- a semantic structure which will create meaningful navigation
- clarity of language
- descriptions of non-textual elements, such as graphs, diagrams and images
- provision of separate items, for example, case studies published as individual files even if these are also contained within an appendix to a final report

There are some quick wins. Particular care should be taken over the formatting of downloadable Microsoft® Word and Adobe® PDF files to ensure that they are accessible to a screen reader. However, if accessible features are added at the outset to the initial Word document, these will be replicated effectively when the document is converted to PDF format.

JISC TechDis, the JISC advisory service in the fields of accessibility and inclusion, has produced a series of guides under the heading of *Accessibility Essentials*<sup>4</sup> which offer step by step guidance on producing accessible Microsoft Word, PowerPoint and Adobe Acrobat files. These can be downloaded from the TechDis website in PDF format, or ordered as hard copies from [helpdesk@techdis.ac.uk](mailto:helpdesk@techdis.ac.uk)

The following points provide a summary of the information contained in *Accessibility Essentials 1,2 and 4*:

- Fundamental to an accessible document is the use of heading styles. Microsoft Word provides up to 7 heading levels (located under Format > Styles and Formatting). If these are used consistently to organise a document, all readers can benefit from gaining an overview of the structure in the Document Map view in Word (located under View > Document Map). Subsequent transformation of the file to a PDF creates bookmark navigation. Transformation to .html creates screen-reader accessible navigation. These benefits can be built in from the very beginning if heading levels are set up in Word at the outset.
- Non-textual elements (for example, graphs, images and tables) can be beneficial extras for many readers, but can pose difficulties for others, especially visually impaired readers, those working from a small screen (for example, a mobile device), or those who have converted the document to audio format. There are various ways of ensuring non-textual information is not lost under these circumstances. These can include building a description of the salient features of the image into the body of the text, providing a caption, or adding an ALT text description to the image. For instructions on adding ALT text descriptors to images, see the TechDis Accessibility Essentials series 1 and 4 (for Word and PDF respectively).
- If creating a PDF directly from a Word document then these processes will maximise your chances of creating an accessible PDF version of your case study. If the case study is formatted at some point in Quark® or Adobe InDesign, it is possible the final PDF output will have lost some of its accessibility to a screen reader, particularly if it includes multiple columns linked to text boxes and graphics.
- In these cases, a good accessibility solution is to offer multiple formats, for example:
  - the final Word version
  - the final PDF version derived either from the Word version or from the graphic design software
- Readability: Clear, simple language will benefit all readers, but particularly those with visual impairment, or those working in a second language. Specific terminology (jargon) may be required at times, but should be supported by explanations that are meaningful to non-expert readers. Acronyms, even those widely used and understood in educational circles, should be similarly explained.

#### **Recommendation**

If audio or video files accompany or are included in a case study, a transcript of the soundtrack will be needed to support users with visual or auditory impairment. Examples of video transcripts can be found at [www.jisc.ac.uk/whatwedo/programmes/elearning\\_pedagogy/elp\\_casestudies.aspx](http://www.jisc.ac.uk/whatwedo/programmes/elearning_pedagogy/elp_casestudies.aspx)

<sup>4</sup> [www.techdis.ac.uk/accessibilityessentials](http://www.techdis.ac.uk/accessibilityessentials)

**Recommendation**

Page numbering ensures that documents can be correctly collated when downloaded and photocopied.

**4.3 Copyright, IPR and privacy issues**

Learning objects accompanying a case study will need to be checked for copyright and IPR issues. Status information should accompany each item – for example, signatures for image or quotation consent, and copyright and IPR clearance where the work of others is included in a bundle of resources.

Stills or video images of work on a computer can inadvertently include elements that invade another's privacy. Care should be taken that individuals' identities, logins and passwords are not visible in the image. Commercial logos on equipment depicted in close up are to be avoided wherever possible.

**4.4 Tagging**

An exemplary vocabulary for tagging case studies is being developed based on terms used in a range of JISC case studies, and in the designs for learning in the Phoebe Pedagogic Planning tool, which has been generated under the JISC Design for Learning programme. This vocabulary will be mapped to existing vocabularies to determine whether these can meet the needs of the JISC community. The following elements are likely to be included as tagging sets:

- resource type e.g. case study
- activities represented e.g. collaborate, discuss, plan
- technologies e.g. chat, assistive technologies, Microsoft Word
- pedagogic approaches e.g. constructivism, experiential learning, work based learning
- media/materials e.g. audio, blog, learning object

Currier *et al* (2005)<sup>5</sup> have also concluded that the pedagogically neutral IMS LD specification could be applied in more meaningful ways if controlled vocabularies are used. The study identifies the following elements of a learning design as potential tag sets:

- type of learning activity
- desired learning outcomes
- learning systems, technologies or services deployed in the course of a learning activity

Optionally these might also include:

- other features of the learning environment
- educational approach or theory expressed in the learning design
- roles of participants in the learning activity

**Recommendation**

Tagging your case studies using a controlled vocabulary will enable users outside of the JISC community to access the value in online versions of the case studies. Setting up a del.icio.us<sup>6</sup> account is also desirable.

<sup>5</sup> [www.jisc.ac.uk/uploaded\\_documents/PedVocab\\_VocabsReport\\_v0p11.doc](http://www.jisc.ac.uk/uploaded_documents/PedVocab_VocabsReport_v0p11.doc)

<sup>6</sup> <http://del.icio.us>

#### **4.5 Publishing on the JISC website**

JISC web pages relating to projects currently tend to be text heavy and give undue emphasis to the aims of the project as given in the project brief. As a result, the language used is academic and frequently specialised and users have difficulty in locating the outcomes of the research.

At the conclusion of the project, provide the JISC programme manager with a clear accessible introduction to your work to upload to the project web page, consulting in advance with team members over the key points to highlight. Provide this information in concise, non-academic language with guidance on how to access the deliverables. For an example of web publishing of multiple items, see [www.jisc.ac.uk/eli\\_casestudies.html](http://www.jisc.ac.uk/eli_casestudies.html)

### **Further information**

#### **Examples of JISC-funded case studies and learning designs**

Tangible benefits case studies

[www.jiscfonet.ac.uk/case-studies/tangible](http://www.jiscfonet.ac.uk/case-studies/tangible)

Case studies from the DeL Subject Centre projects

[www.heacademy.ac.uk/ourwork/learning/elearning/del](http://www.heacademy.ac.uk/ourwork/learning/elearning/del)

Stories from the DeL Regional Pilot projects

[www.jisc.ac.uk/whatwedo/programmes/programme\\_edistributed/regionalstories.aspx](http://www.jisc.ac.uk/whatwedo/programmes/programme_edistributed/regionalstories.aspx)

Design for Learning runnable and exemplary designs from the del.icio.us site

[http://del.icio.us/design\\_for\\_learning](http://del.icio.us/design_for_learning)

Designing Spaces video case studies

[www.jisc.ac.uk/whatwedo/programmes/elearning\\_innovation/eli\\_learningspaces\\_casestudies.aspx](http://www.jisc.ac.uk/whatwedo/programmes/elearning_innovation/eli_learningspaces_casestudies.aspx)

Digital Libraries in the Classroom video case studies

[www.jisc.ac.uk/whatwedo/programmes/programme\\_dlitc/projectvideos.aspx](http://www.jisc.ac.uk/whatwedo/programmes/programme_dlitc/projectvideos.aspx)

Effective Practice with e-Assessment

[www.jisc.ac.uk/whatwedo/programmes/elearning\\_pedagogy/elp\\_assessment.aspx](http://www.jisc.ac.uk/whatwedo/programmes/elearning_pedagogy/elp_assessment.aspx)

Effective Practice with e-Learning

[www.jisc.ac.uk/whatwedo/programmes/elearning\\_pedagogy/elp\\_casestudies.aspx](http://www.jisc.ac.uk/whatwedo/programmes/elearning_pedagogy/elp_casestudies.aspx) and  
[www.jisc.ac.uk/whatwedo/programmes/elearning\\_pedagogy/elp\\_innov\\_casestudies.aspx](http://www.jisc.ac.uk/whatwedo/programmes/elearning_pedagogy/elp_innov_casestudies.aspx)

eLIDA CAMEL Design for Learning case studies

[http://dfl.cetis.ac.uk/wiki/index.php/ELIDA\\_CAMEL](http://dfl.cetis.ac.uk/wiki/index.php/ELIDA_CAMEL)

Innovative Practice with e-Learning – mobile and wireless

[www.jisc.ac.uk/whatwedo/programmes/elearning\\_innovation/eli\\_casestudies.aspx](http://www.jisc.ac.uk/whatwedo/programmes/elearning_innovation/eli_casestudies.aspx)

Innovative Practice with e-learning video case studies

[www.jisc.ac.uk/eli\\_casestudies.html](http://www.jisc.ac.uk/eli_casestudies.html)

MLEs for Lifelong Learning programme

[www.elearning.ac.uk/mle/cases](http://www.elearning.ac.uk/mle/cases)

Phoebe del.icio.us case studies  
<http://del.icio.us/oxphoebe/CaseStudies>

Planning and designing technology-rich learning spaces infoKit  
[www.jiscinfonet.ac.uk/infokits/learning-space-design](http://www.jiscinfonet.ac.uk/infokits/learning-space-design)

### **Examples from other organisations**

Higher Education Academy  
<http://www.heacademy.ac.uk/resources/casestudies>

OTIS case studies  
<http://otis.scotcit.ac.uk/casestudy>

QIA Excellence Gateway Good Practice Database  
<http://excellence.qia.org.uk/goodpracticedatabase>

Scottish Transformation Programme case studies  
[www.jisc.ac.uk/whatwedo/programmes/elearning\\_sfc.aspx](http://www.jisc.ac.uk/whatwedo/programmes/elearning_sfc.aspx)

# Appendix A

## Examples of completed case studies

### 1. DEL Regional Stories (2008): the ePistle project

#### Effective use of e-portfolios to support widening participation and progression

The University of Wolverhampton has found that one of the keys to success in introducing e-portfolios is working out how to gain and maintain the interest of the people involved.

#### EPISTLE project

University of Wolverhampton; Telford College of Arts and Technology

Contact Rachel Challen and Theresa Loughlin

e-Portfolio PebblePad

Working with three local FE colleges and a school, they have been testing how e-portfolios can help trainee teachers to reflect on their learning more effectively.

Rachel Challen, who supported the module leaders at the college, found that it really made a difference if the e-portfolio was introduced as an integral part of the course, rather than an add-on that could be seen as simply causing more work.



*'The people side is as important to its success as the usability of the technology'*

She also found that the tutor's approach to the idea of using an e-portfolio is critical, and that mentoring them was an important aspect of her role. Their attitude and enthusiasm mattered more than any previous experience they might have had - and they were able to work on acquiring the skills as they went along.

Where tutors became fully involved in the process, it became apparent that learners were more likely to see the e-portfolio as a useful tool. If not, there was the risk of it being viewed as an 'extra' that Rachel came to deliver to learners,

rather than a valuable part of the course that needed to be taken forward by the learners themselves.

*'Learners become 'champions' of the process'*

Her conclusion is that 'the people side is as important to its success as the usability of the technology. The technology obviously plays an important part, and learners need to feel that using an e-portfolio doesn't make the task harder than it need be'.

PebblePad, the e-portfolio tool chosen by the University for the pilot, was generally seen as a user-friendly tool and not requiring too much in the way of technical know-how.

The trainee teachers used the e-portfolio for everything from recording meetings and action plans to uploading photos and processes. They liked being able to include items like these in their portfolios, and felt that it opened up opportunities and helped them to develop new skills.

A number of students started out as sceptics when first presented with the concept of creating a web-based portfolio, but soon found that it could help them to structure and record what they had learned in a much more memorable way. James, who admits that initially he was a sceptic, is now an avid user of the software, using it to record his references and readings list

Claire Mansfield, another student on the course, produced some small videos to insert in her webfolio for sign-language students.

And Theresa, one of the college tutors, remarked that 'the essence of the web folio is that what used to be a very one dimensional approach to reflection, through a diary or journal, has now become multidimensional and also utilises a range of multimedia'. Since the end of the pilot, the University has kept in touch with the colleges, and they are pleased that work on e-portfolios is continuing at all of them.

Learners on other courses have seen what these trainee teachers have been doing, and are keen to try out e-portfolios for themselves. In fact, one of the colleges was sufficiently impressed with the results that they are now doing a full rollout of the e-portfolio across all subject areas.

Rachel feels that one of the most encouraging aspects to come out of the pilot is that learners who were involved in the pilot have since become 'champions' of the process, which should help it to become an accepted part of the learning environment.



Listen to Sara Caselton-Bone interview Rachel Challen & Theresa Loughlin about PebblePad

**This case study is available online at**

[www.jisc.ac.uk/whatwedo/programmes/programme\\_edistributed/regionalstories/epistle.aspx](http://www.jisc.ac.uk/whatwedo/programmes/programme_edistributed/regionalstories/epistle.aspx)

## Examples of completed case studies

### 2. LEAP Case study (2005) – Hybrid Based Campus, Higher Education Academy

Category	Description
<b>Case study title</b>	Blended learning for health and social care education practitioners
<b>Pedagogical Theme</b>	Use of a VLE to enhance blended learning in a health and social care education postgraduate programme of study
<b>Key Words</b>	Blended learning, experiential learning, health and social care education,
<b>Academic subject area</b>	Health and social care education
<b>Key conclusions</b>	Though the development and delivery of blended learning approaches is time-consuming and involves commitment in encouraging and supporting students, the rewards can be substantial with evidence of learning gains and increasing valuing of the medium even amongst those initially opposed. The staged introduction of e-learning activities in the first two units contributed to the effectiveness of the blended learning approach in the third unit. The significance of different learning needs and preferences was highlighted and particular difficulties for some students in processing lots of text messages compared to face-to-face discussions. While students felt challenged by the sharing of thoughts in written form, they valued the flexible learning opportunities afforded by the VLE medium.
<b>What were the expected outcomes</b>	<ul style="list-style-type: none"> <li>• To enhance the student learning experience by integrating online and face-to-face learning activities</li> <li>• To facilitate students' critical awareness of blended learning through provision of experiential learning opportunities</li> <li>• To provide more flexible learning opportunities for mature, full-time practitioners employed in the health and social care professions.</li> </ul>

#### Description of e-learning activities:

Following the introduction of staged e-learning activities within the first two units, the blended learning approach was delivered in the **third unit** of Stage 1 of the Masters in Health and Social Care Education/Practice Education.

The expected outcomes were to:

- Enhance the student learning experience by integrating a variety of online with face-to-face learning activities
- Immerse students in the experience of learning by doing in order to enable them to develop critical awareness of blended learning opportunities
- Provide more flexible learning opportunities for its participants who tend to be mature, full-time practitioners employed in the health and social care professions.

The pattern of weekly face-to-face sessions had been established by the first two units of the programme. The third unit consisted of 9 weekly sessions. These were delivered by alternating face-to-face sessions (55%) with online learning modules (45%) week by week.

This approach had been preceded by two units in which students were introduced to the VLE and encouraged to use it to access weekly session notes and handouts, to communicate online with their Action Learning Groups (ALGs) and to participate in some online learning activities.

- In the **first unit** students were asked to share a critical reflection on a teaching experience and to receive feedback from peers.

The rationale for this activity was to build students' confidence in sharing personal reflections on their teaching experiences and to encourage peer support in providing feedback online.

- In the **second unit**, students prepared online cases for introducing different assessment strategies working within their ALG discussion boards. They then posted a summary of their case in the class discussion forum in preparation for a face-to-face group role play in which they attended a working party on online assessment strategies.

The rationale was to extend peer learning beyond the classroom by increasing opportunities for sharing and collaborating outside the classroom.

A blended learning approach was adopted in the third unit to enable students to be more fully immersed in e-learning activities and to provide more flexibility for the timing and pace of their learning.

- In the **third unit** students weekly sessions were divided between face-to face and online sessions. Students participated in various online activities focussed around the learning outcomes for each session. Topics for consideration within each online learning module were outlined and developed by means of a variety of associated activities including reflective questions, completing questionnaires, both paper-based and online, posting summaries and results of activities to discussion forums, and taking part in an online debate. Links to online resources were provided where possible and some of the online modules were supported by paper-based resource packs.

The rationale for this blended learning approach was to challenge the norm of face-to-face learning and to engender critical awareness of e-learning through practice rather than mediated experiences.

#### **Evaluation of case study:**

*What was your perception of the e-learning activity?*

The e-learning activities have contributed to student learning with evidence of critical thinking, reflection, peer support and collaboration online. The depth of critical thinking and reflection afforded by the online activities was identified in feedback comments from students. Student criticality towards e-learning was also enhanced by engagement with online practices.

*What was your colleagues' perception of the e-learning activity?*

Colleagues were enthusiastic and saw benefits this blended learning experience had brought to student engagement with online activities in the subsequent stages of the programme.

*What was your students' perception of the e-learning activity?*

- Students felt challenged by the e-learning experience and some vulnerability in sharing thoughts for others to see.  
"I found the vulnerability of your written word. It's up there for everyone to keep referring to."

” ...having the confidence to hit that button and put something you’ve written down as your own thoughts for others to read.”

- They identified an increased amount of work required when compared to classroom activities. Some students enjoyed working through the unit and appreciated the range of resources available to them.
- Some disliked the approach finding it difficult to read all the messages on screen. For some students with additional learning needs, the online activities proved particularly challenging due to the difficulties of processing so many text messages compared to face-to-face discussions.  
Student comments included:  
”I found it very hard to read that huge amount on a screen and I just got so bombarded ....So I didn’t contribute to the whole group because it was just far too much for me to process, staring at me on the screen.”  
Another student argued:  
”I think I just want us to get round a table and I can make sense of it then and I can throw in different ideas but I can’t make sense of it by e-mail. I just can’t do it...”.
- Some students valued the flexibility afforded by the VLE medium where they had a long journey time to the university.  
”Doing this at a distance was much more convenient for me because I didn’t waste four hours on buses.”  
They also recognised the difficulty of ring-fencing time for online studies when not timetabled in class.  
”You need more discipline in some ways. It’s easy to say its Friday afternoon, I’ve got to come to class. But if its OK, well I have to sit down in front of this computer and do 2-3 hours work, it’s easy to be distracted and do other things.”

*Activity Statistics (if applicable)*

Not Available

*What have you learned from your experiences (good and bad)?*

- The development and delivery of blended learning approaches is time-consuming and involves dedication and commitment in encouraging and supporting students.
- The rewards can be substantial with evidence of learning gains and a steady shift in student support for e-learning even amongst those strongly opposed at the start of the unit.  
”I think that it has made me a more independent learner. Actually it has helped to enable me to think more deeply about what I am doing at the time because I don’t have anyone else to feed off so I have to actually be more questioning on my own..”  
”I think for me personally being able to experience this has been really powerful...you don’t know how easy it is until you have done it yourself.”
- The importance of ensuring the continuity and development of e-learning with a staged approach to the integration of e-learning activities in the curriculum.
- The significance of different learning needs and preferences and their influence on engagement and perceptions of e-learning.  
”I’m very much an activist so what I think comes out and if I don’t say it in 5 minutes I’ve forgotten what I’m going to say. But Blackboard stops you doing that because you have to actually physically write it down. So it’s probably improved my learning style quite a bit, being able to step back and look at it.”

The positive influences of the medium for some learners are counterbalanced by difficulties for other learners with preferences for verbal over textual communication.

### **Course Details:**

<i>Name of course</i>	PGDip/MA in Health and Social Care Education/Practice Education
<i>Course level</i>	The programme consists of three stages, Stage 1 Certificate, Stage 2 Diploma, and Stage 3 Masters. The case study refers to Stage 1 of the programme which consists of four units, three coinciding with Autumn, Spring and Summer terms and the fourth running in parallel over the three terms.
<i>Number of students</i>	M level
<i>Case Study Running Time</i>	16
<i>Course Compulsory</i>	One year
<i>Software used</i>	Yes
	Blackboard

*Please describe whether the e-learning activity was complementary/ supplementary (indicate %age)*

The e-learning activities complemented the face-to-face sessions in the first two units of the programme and replaced face-to-face sessions in the third unit with a pattern of alternate weeks online (45%) and face-to-face (55%).

*Is the course assessed?* Each unit is assessed by means of a negotiated assignment but online contributions are not assessed.

### **Academic Staff Development:**

*What existing skills were required?*

Designing learning materials  
E-moderating  
Using VLE functions.

*What new skills were required?*

Using and developing additional VLE functions such as assessment for delivering an online questionnaire.

*How much time was required to develop new skills?*

Little time needed given familiarity with VLE, previous experience in e-moderating, and availability of troubleshooting advice by Central Learning Technology Support.

*How much time was required to develop the e-learning activities?*

Preparing learning materials for each of the four online learning modules, varied between 1-3 days per module. This included writing materials, setting up discussion forums, preparing resource packs, and loading a questionnaire. Having produced these learning modules, it is anticipated the process of updating will be speedier so reducing time required in preparing for subsequent cohorts.

*How much support staff time was required (please describe job roles if possible)?*

A learning technologist assisted in setting up the course in Blackboard and adding student names to Action Learning Groups at the start of the Academic Year. Troubleshooting advice was provided throughout the period of the case study.

*What skills have been learned from the experience?*

Developed appreciation of the benefits of integrating different structured learning activities by means of the VLE.

Fostered development of course design and navigational skills to facilitate student learning pathways through a blended learning unit.

### **Future work**

*Do you intend to further develop this case study?*

Yes, the requirement for students to develop their use and critical awareness of blended learning approaches will continue to form an important outcome in the professional education of health and social care teachers and clinical practitioners.

*If yes, why are you intending to develop it?*

To further enhance the quality of the student learning experience by finding ways of engaging the less active contributors

To increase opportunities for greater flexibility of access to units of study

*If yes, how do you intend to develop it?*

To develop online quizzes with feedback

To provide more online learning modules within other units of the programme

*If no, why not?*

n/a

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**This case study is available online at**

**[www.heacademy.ac.uk/assets/York/documents/resources/resourcedatabase/id580\\_leap\\_casestudy19.doc](http://www.heacademy.ac.uk/assets/York/documents/resources/resourcedatabase/id580_leap_casestudy19.doc)**

## Example of completed case studies

### 3. Tangible benefits of e-learning (2007) – University of Hull Learning Resources and Activities Education

Questions	Explanation and further information	Web ma
<b>Case Study #18</b> Title	<b>University of Hull Learning Resources and Activities Education</b> Online MEd in e-Learning programme	Header (
<b>Lead Institution and Partners</b>	University of Hull	Header (
<b>Lead Contact and Email</b>		Header (
<b>JISC programme</b>		
<b>Project Dates</b>		Header (
<b>Tags</b>	<b>List tags/keywords which best describe the focus of the project.</b> Learning Resources and Activities, C-SAP.	

Questions	Explanation and further information	Web ma
<b>1. What is the background to the e-learning initiative?</b>	<p><b>Why did you use this e-learning approach?</b></p> <p>The MEd in e-Learning programme was designed to provide professionals from across the world with the opportunity to interact with others in a range of education and training contexts and roles through a wholly online Masters programme. The intention was to ensure provision for individuals unable to travel to Hull and to develop provision which would, deliberately not simply, attempt to replicate classroom-based teaching but exploit the opportunities and added value which the VLE offered. Participants are encouraged to work independently and collaboratively as they explore core issues involved in the design, development and implementation of e-learning with specific focus and emphasis placed on their professional working context.</p> <p><b>What was the context in which you used this e-learning approach?</b></p> <p>The MEd in ICT for TESOL, precursor to the current programme, was the first wholly online Masters programme within the University of Hull when established in January 2000. This evolved into the MEd in e-Learning, accredited from January 2004, to provide a more generic programme. Participants include professionals in a range of roles and discipline backgrounds, across sectors as varied as HE, FE, schools, Trade Union Education, and the voluntary and private training sectors, in a variety of areas around the UK and internationally, from Europe and places as far apart as Brazil, Egypt and Hong Kong.</p> <p>There are two possible start dates a year (September and March) and the programme comprises 6 x 20 credit modules and a 60 credit dissertation. Each module can be taken as a stand alone course independent of the full Masters programme and there are optional exit points at Certificate and Diploma level.</p>	Backgrou and Cont

<p><b>2. What was the purpose and intended outcomes of the initiative?</b></p>	<p><b>What was the design?</b></p> <p>The e-learning approach on the programme is based on an underlying assumption that engagement in study will take place alongside participants' professional work, with academic study enhanced by reference to current practice, and direct relevance of study to challenges and issues within the work context. With this in mind, almost all modules encourage assignments and project work to be contextualised within real educational contexts, and students are encouraged to combine a depth of exploration into issues pertaining to e-learning within their own contexts with mutual and peer learning through comparison and contrast with the contexts of their online colleagues.</p> <p>All programme tutors have been involved in the design of active learning activities which include online seminars, mini-action research projects, the development, implementation and evaluation of a period of e-Teaching Practice, the design and development of e-resources, and the development of a collaboratively-owned e-dossier comprising individual papers investigating a negotiated theme and topic related to e-learning management and implementation.</p>	<p>Background and Context</p>
<p><b>3. How was the initiative implemented?</b></p>	<p><b>How did you implement and embed this e-learning approach?</b></p> <p>Delays with registration processes continue to be a particular problem, but this is the case for much part-time provision and the fact that access to the Merlin VLE is not tied to registration partly alleviates the difficulties resulting from delays. The programme is subject to the same quality assurance processes as any programme within the University, including student module TQAs, tutor module reports, programme annual monitoring reports, External Examiner reports etc. There is also the opportunity for significant informal interaction between staff and students, and for online staff-student meetings and these are invaluable for evaluating the effectiveness of the programme and the e-learning approach and to guide review and revisions.</p> <p>Engagement in this programme has provided a valued form of professional development for some other academic colleagues and support staff across the university and has been instrumental in informing the development of online provision of modules and programmes within their own departments and faculties.</p>	<p>Background and Context</p>
<p><b>4. What technologies and/or e-tools were available to you or did you seek to develop?</b></p>	<p><b>What technologies and/or e-tools were available to you?</b></p> <p>The range of geographical and professional contexts represented by the student body on the programme means that the approach taken is largely based around asynchronous communication, involving discussion, online activities and project work. The principal tools used are those of the VLE (until now the University of Hull's own VLE – Merlin) and include a pathway tool, resource centre, email, text-conferencing and e-portfolio tools which include a form of blogging tool. However, increasingly the learning and teaching makes use of synchronous tools external to the VLE itself such as Skype, MSN, wikis and Googledocs.</p> <p>The Merlin VLE was for many years the ideal tool for the programme as it was designed and built specifically to facilitate and enhance online collaborative learning along a social-constructivist model involving the creation of an online community. The VLE has, however, had little investment and no development in recent years and the programme will transfer to the new institutional VLE once this is selected.</p>	<p>Technologies</p>
<p><b>5. What are the key outcomes of the initiative?</b></p>	<p><b>What tangible benefits did this e-learning approach produce?</b></p> <p>The Master of Education in e-Learning is designed as a part-time, delivered entirely online from its first inception and offers significant</p>	<p>Success Factors</p>

flexibility of time, pace and place of study. Hence there is no previous traditional-delivery programme to draw comparisons with. The programme largely serves a student group who would not be able to follow a programme with this university except via the wholly online learning approach, and enables access to study for students around the world, the large majority of whom are studying alongside their professional lives, ensuring a symbiotic relationship between their study and work contexts. This enhances the learning experience for students and the teaching experience for staff, as is highlighted by typical student comments:


- 'The international dynamics of the group enabled a real development in my breadth of vision in relation to teaching and learning in general and, teaching and learning online.'
- 'During the course we were always encouraged to relate the learning to our work environment and I found the content helped me become more effective in my professional capacity.'
- 'Having access to professionals from other areas of education, with all the experience, know-how and information that they bring to the course not only makes the course interesting but gives me insights into my own ways of working.'

The direct relevance of the programme, the assessed projects, and the other learning activities, to work contexts, and the benefits individuals gain from the opportunity to draw on the experience of online peers within a range of sectors and to learn from the variety of experiences and expertise they represent, is evidenced by the fact that many students gain promotion at work, and/or secure new posts more directly related to the implementation of e-learning during the programme, as well as a result of gaining the Masters qualification.

The External Examiner for the programme has highlighted the particular benefits students derive from the inclusion of collaborative assessment tasks, and noted the positive impact on their achievement. The use of the Merlin Portfolio, increasingly in combination with external, largely Web 2.0, tools, facilitates and enhances the collaboration which is possible on the programme and ensures both secure submission of joint work, and provision for access to the complete moderation process, for programme staff and External Examiners, all within the same online environment. The personalised nature of the VLE in use on the programme has been important in enhancing group identity and creating a sympathetic learning environment and partnership in the learning and teaching process - this is especially important given the dispersed nature of the cohorts on the programme. The exploitation of the enhanced opportunities which online technologies provide for student engagement not only in collective working, but in iterative processes of critical peer review of coursework and exploration of different facets of academic and professional writing resulted in the fact that a number of students on the MEd in e-Learning have had papers accepted for conference presentation and for publication during the course of their studies.

The programme has had a positive impact on the wider institution. It has provided CPD for a number of academic and support staff in other areas of the university, both giving first hand experience of online learning and developing critical insight into e-learning and the relationships between learning theory and e-learning design which has influenced and enhanced their own development of online activities, modules and complete programmes. A new online Masters programme in the Faculty of Health will start in September 07, developed by a member of staff whose own understanding of e-learning was enhanced by participation in the MEd in e-Learning. As the first wholly online programme within the institution, the programme has been instrumental too in broadening the University's

	<p>sense of the student identity beyond that of the traditional campus-based learner. Online students now benefit from a much broader range of online and e-resources (primary journal expenditure is in e-journals and books will be purchased in e-book format where available) and from the provision of a range of student services (e.g. study advice, counselling, careers skills) by email/website. Such developments do not solely benefit online students but enhance provision for the full range of student-types, whether full- or part-time and on traditional off-campus programmes.</p> <p>A further tangible benefit from the programme, this time to the wider educational community, is the publication of the following book:</p> <p>Bennett, S., Marsh, D. and Killen, C. (2006) <i>Handbook of Online Education</i>, Continuum International Publishing Group Ltd. ISBN: 0826472966. Two of the authors were involved in the development of the MEd in e-Learning and teach on the programme. A number of the activities within the book are derived from the MEd in e-Learning programme and from positive responses to students. A review of this book can be found on the Escalate website at: <a href="http://escalate.ac.uk/3427">http://escalate.ac.uk/3427</a> [url <a href="http://escalate.ac.uk/3427">http://escalate.ac.uk/3427</a>]</p> <p><b>Did implementation of this e-learning approach have any disadvantages or drawbacks?</b></p> <p>While the use of asynchronous communication enables significant flexibility of access, and enables students and staff alike to fit the programme around other aspects of their lives, there are accompanying problems such as on the one hand intrusion into work-life balance, and on the other, the challenge of self-discipline which flexibility itself brings. However, collaboration itself brings challenges which in many ways are similar to those faced in more traditional learning contexts, and at times, leads to frustration if all are not seen to contribute equally. These are often exacerbated by the time-factor inherent in asynchronous communication patterns, and students are not always as sympathetic to the needs and situations of their online colleagues as one would hope.</p> <p>A major problem encountered with the approach is that the “market” differs from that of other programmes in the department, which largely serve the local or regional needs of teachers within the school sector. The established marketing and publicity processes are therefore inadequate for this programme and recruitment remains the over-riding challenge faced by the Med in e-Learning. Similarly, since the other programmes within the department use traditional modes of delivery, the distance e-learning students on the MEd in e-Learning do not have the opportunity to incorporate modules from other departmental specialities within their programme of study.</p> <p><b>How did this e-learning approach accord with or differ from any relevant departmental and/or institutional strategies?</b></p> <p>The e-learning approach on this programme accords with key aims of the faculty in which the programme is based, the Institute for Learning, contributing to provision for off-campus and work-based students and to the aspiration of “Accelerating the University’s involvement in open and distance learning methodology, from the regional to the global scale”. It complements the significant levels of blended learning within other programmes across the faculty, but differs in being wholly-online, without a face-to-face component.</p>	
<p><b>6. What follow-up activity will be/has been carried out as a result of the</b></p>		<p>Success Factors</p>

<b>project?</b>		
<b>7. What are the lessons learned from the project?</b>	<p><b>Summary and Reflection</b></p> <p>The e-learning approach on the programme has been successful in pedagogical terms and has provided an enriching learning experience for the participants based around the UK and beyond. It has contributed to the development of online provision in other faculties across the institution. However, improved strategies for marketing are needed to improve recruitment and enable larger class-sizes and opportunities for optional modules within the programme.</p>	Lessons Learned
<b>8. Additional Information</b>	<p> <a href="#">Hull MEd CS Cover Sheet.doc</a> [bookmark <a href="#">CSCS</a>]</p> <p><a href="http://escalate.ac.uk/3427">http://escalate.ac.uk/3427</a> [url - <a href="http://escalate.ac.uk/3427">http://escalate.ac.uk/3427</a>]</p>	Header (

### Hull (Med) CASE STUDY COVER SHEET

The MEd in e-Learning programme was designed to provide professionals from across the world with the opportunity to interact with others in a range of education and training contexts and roles through a wholly-online Masters programme. The intention was to ensure provision for individuals unable to travel to Hull and to develop provision which would deliberately not simply attempt to replicate classroom-based teaching but exploit the opportunities and added value which the VLE offered. Participants are encouraged to work independently and collaboratively as they explore core issues involved in the design, development and implementation of e-learning with specific focus and emphasis placed on their professional working context.

This case study illustrates:

- Effect on learning (e.g. context, style, insight and reflective practice)
- Effect on exam results
- Effect on student personal development (e.g. skills, employability, confidence)
- Student satisfaction with e-learning (e.g. effect on motivation, attendance and enjoyment, as shown in national survey, institutional survey, module evaluation, focus groups, or other)
- Innovation in teaching, learning and assessment (e.g. stimulus to creative approaches)
- Influence on educational research
- Staff satisfaction with e-learning
- Effect on staff personal development (e.g. skills, employability, confidence)
- Influence on recruitment (students or staff; e.g. through greater accessibility; opening up new markets)
- Influence on retention (e.g. students or staff)
- Influence on policy (e.g. institutional, faculty/school, departmental, or other extra-institutional body)
- Effect on resources (e.g. effect on cost of delivery, time, applying full economic costing to teaching & learning)
- Modifications to learning spaces (e.g. libraries, wireless networks, informal learning spaces)
- Effect on management of learning assets (e.g. institutional IP, repositories)
- Effect on a social justice agenda (e.g. widening participation, provision of space for consideration of differing or challenging perspectives)

**Soundbites:**

Some comments from students on the course:

“During the course we were always encouraged to relate the learning to our work environment and I found the content helped me become more effective in my professional capacity.”

“Having access to professionals from other areas of education, with all the experience, know-how and information that they bring to the course not only makes the course interesting but gives me insights into my own ways of working.”

A comment from the course tutor:

“The External Examiner for the programme has highlighted the particular benefits students derive from the inclusion of collaborative assessment tasks, and noted the positive impact on their achievement. The use of the Merlin Portfolio, increasingly in combination with external, largely Web 2.0, tools, facilitates and enhances the collaboration which is possible on the programme and ensures both secure submission of joint work, and provision for access to the complete moderation process, for programme staff and External Examiners, all within the same online environment.”

**This case study is available online at**  
**[www.jiscinfonet.ac.uk/case-studies/tangible/hull/index\\_html](http://www.jiscinfonet.ac.uk/case-studies/tangible/hull/index_html)**

## **Example of completed case studies**

### **4. Innovative Practice with e-Learning JISC (2005)**

#### **Active collaborative learning - University of Strathclyde: CD-ROM and Web version**

##### **Background**

The University of Strathclyde in Glasgow has an undergraduate population of approximately 14,500. The Department of Mechanical Engineering at Strathclyde is one of the largest in the UK with some 500 undergraduate and 80 postgraduate students and adopts a strategy of continuous improvement in its approach to teaching and learning.

##### **The challenge**

The first year intake (approximately 130 students) into the Department of Mechanical Engineering is normally amongst the most highly qualified at entry across the University. Yet despite their proven academic ability, it became apparent in the mid 1990s that students were having difficulty in acquiring understanding of the core curricular content, making ‘inexplicable blunders’ in the application of essential concepts. Furthermore, attendance at lectures and overall retention figures were dropping, an indication of low levels of motivation. Over the first two years of the course, it was estimated that the Department was beginning to lose almost 20% of its student intake. There was also a further concern - the rise in applications for courses in the Department during this period was limiting the potential for interaction with students, especially in the crucial first year of their studies.

##### **Innovative solutions**

As part of a wider project, New Approaches to Teaching and Learning in Engineering, or NATALIE, changes were introduced to the pedagogical approach used in the Department. A product called Interwrite™ Personal Response System (PRS) from GTCO CalComp was adopted and four lecture rooms, seating up to 150 students, were equipped with PRS receivers and voting devices. In some of these rooms, seating was modified to allow students to engage in group discussion while still facing the front of the theatre.

The Personal Response System can be described as a classroom communication system or electronic voting system. Students use handsets, which operate at a range of up to 60 ft. from the receivers, to respond to questions using infra-red technology similar to a TV remote. Receivers are linked to a computer or laptop and a data projector and the software allows their responses to be immediately collated and displayed as a histogram or bar chart.

With the introduction of PRS, the content of lectures was re-structured to focus on the establishment of core concepts and the testing of students' understanding in line with a social constructivist perspective. Students were asked questions based on background conceptual knowledge, then required to explain and defend their responses in the face of questioning by others with different perspectives. The approach can be broken down into the following stages:

- Introduction of a concept
- Response to questions (individuals test their understanding)
- Polling of answers provides feedback (projected histogram shows group results)
- Peer discussion (individuals asked to defend their answer)
- Second vote (students respond again individually)
- Further feedback (histogram shows subsequent group response)
- Summary and explanation of 'correct' response by lecturer.
- Optional class-wide discussion.

Discussing conceptual questions in class with their peers has also proved to be a powerful motivating force, perhaps because the new structure allows students time for reflection, but also because debate, discussion and questioning have been shown to support more active and deeper learning. Students feel motivated to focus on knowledge gained during a lecture so that they can perform well in what they see as 'fun' assessment activities.

Evaluations of the use of PRS in the Department by the Psychology Department at the University of Glasgow have shown that students can interact with lecture content, and each other, in a number of different ways when using polling devices, and that the variation in techniques stimulates learning still further. Results from diagnostic tests provide further evidence of raised standards in the Department. The retention problem has been greatly reduced; exit interviews with those leaving show that lack of motivation is no longer cited as a cause.

The PRS system has now also been adopted by staff in the Physiology and Pharmacology and Mathematics Departments, and the French Studies division of the Department of Modern Languages at Strathclyde.

***"It helps you to learn to stand up for yourself and argue your point of view...To be able to sit there and say that you are wrong is difficult for anybody, but in there it is easier because there are 50% that were wrong as well." (Student quote, Evaluation Data, Nicol and Boyle, 2003)***

### **The technology**

The system used at Strathclyde comes with software which is installed on to the computer or laptop and enables student responses to the multiple choice questions to be instantly displayed as bar charts or histograms. The Interwrite PRS software has a 'Review Session' feature that allows the lecturer to see the results of a questioning session both on an aggregate basis and by individual student. In addition, data from student responses can be imported into a variety of other applications including Notepad, Microsoft<sup>®</sup> Excel and Word. InterWrite PRS software is an independent application that operates on Windows<sup>®</sup> or Mac OSX platforms and can easily import graphics for PRS-generated questions.

The hardware proved to be simple, reliable and inexpensive (approximately £1000 per 100 students). Receivers operate on a line of sight and so do not interfere with radio frequency equipment or systems in adjacent rooms.

Other similar systems exist but may have different features and capabilities. It is important to check that the chosen system will support the number of potential users.

### **Making it happen**

- To maximise take-up of the system across the curriculum, mobile PRS units could be made available. However, staff are likely to need technical assistance with positioning receivers and setting up connections. The software will also need to be loaded on to the computer or laptop in this case.
- Lecturers will not be able to cover all curricular content in class, selecting instead those topics with the greatest conceptual difficulty. Some aspects of the curriculum will need to be covered by different modes of learning.
- Existing lecture spaces will ideally need to be reconfigured to enable group discussions.

### **Key points for successful innovation**

- It is essential to use an electronic voting system within a clear pedagogical framework: problem-based learning, for example, can be used in conjunction with this system to bring to life the less accessible aspects of a curriculum and to encourage questioning and debate.
- Time will be needed to restructure lecture content. Training may also be required to enable the writing of effective and meaningful questions.
- The integration of PRS will have effects on the timetable, as two-hour rather than one-hour sessions are required for full discussions to take place.

Student surveys have shown that over 90% felt that concepts were learnt more effectively when they had the opportunity to discuss and question and retain their knowledge for longer.

### **Final word**

It could be argued that the use of questions formulated by the lecturer is still teacher-centred. This may be an appropriate approach with first year students. However, the balance could be shifted in later years in favour of students formulating their own questions. Student responses could even be used to define the content of some sessions in an increasingly learner-centred pedagogical approach.

### **For further research**

Interwrite PRS™ website at <http://www.gtccocalcomp.com/interwriteprs.htm>

Draper, S.W. & Brown, M.I. (2004) "Increasing interactivity in lectures using an electronic voting system", *Journal of Computer Assisted Learning* Vol.20 pp.81-94, at: <http://www.psy.gla.ac.uk/~steve/ilig/papers/draperbrowncover.html>

Nicol, D.J & Boyle, J.T: Peer Instruction versus Class-wide Discussion in large classes: a comparison of two interaction methods in the wired classroom, *Studies in Higher Education*, Vol.28, No. 4, October 2003

<b>Opening the box – Electronic voting system</b>											
<b>Learning and teaching potential</b>	<p>Enables learning through collaboration, questioning and discussion</p> <p>Increases lecturer-to-student interaction in large group contexts</p> <p>Can increase motivation to learn</p>										
<b>Risks</b>	Impact on timetabled course delivery										
<b>Support implications</b>	Training for staff adopting new pedagogies										
<b>Accessibility issues</b>	<p><b>Benefits:</b> dyslexic learners can benefit from discussion-based learning</p> <p><b>Issues:</b> deaf or hearing impaired learners can struggle to follow group discussions. Visually impaired learners may need the voting results described orally</p> <table border="1" data-bbox="619 862 1361 958"> <thead> <tr> <th>Motor</th> <th>Mobility</th> <th>Hearing</th> <th>Vision</th> <th>Cognitive</th> </tr> </thead> <tbody> <tr> <td>x</td> <td>✓</td> <td>Possible challenge</td> <td>Possible challenge</td> <td>✓</td> </tr> </tbody> </table>	Motor	Mobility	Hearing	Vision	Cognitive	x	✓	Possible challenge	Possible challenge	✓
Motor	Mobility	Hearing	Vision	Cognitive							
x	✓	Possible challenge	Possible challenge	✓							
<b>Costs</b>	Low to medium. Reconfiguration of learning spaces will increase costs										
<b>Added value</b>	High in large group teaching contexts										
<b>Additional uses</b>	Formative assessment if results are recorded individually or by group										

This case study is available online as Word and PDF files at [www.jisc.ac.uk/whatwedo/programmes/elearning\\_innovation/eli\\_casestudies.aspx](http://www.jisc.ac.uk/whatwedo/programmes/elearning_innovation/eli_casestudies.aspx)

## Appendix B

### Capture Document Template

<b>Interviewer Date</b>	
<b>Title of case study</b>	
<b>Contextual information</b>	
Institution name	
Institution description	General FE College, HEI, specialist college etc
Address	
Key contact tel & email	
People interviewed:	Names and email contact details
<b>Description of practice:</b>	
<b>Rationale</b>	What were the drivers behind the initiative, external and internal?
<b>Stage of development</b>	When did the initiative start? How long has the practice been in place?
<b>Curriculum context</b>	In which areas of the curriculum has this practice been implemented? Give qualification, course and/or module titles.
<b>Learner profile</b>	What type of learners are involved – part or full-time?
	What age are the learners? What year/ level of study?
Pre-requisite skills if any	Do learners have to have certain skills or prior experience?
<b>Learning objectives or intended outcomes</b>	What are the learning objectives or intended outcomes?

<b>Environment for learning:</b>	
Cultural setting	What type of area does the institution support/what type of learners does the institution recruit or select?
Physical setting, if relevant	Where does the activity take place? What information is there about the institution eg size, type, number of FTEs etc
Mode of access	Is the learning situated at the college, or is it in distance or blended mode?
Social setting	Do learners work individually or in groups? Do they collaborate on tasks?

Tools	<p>What physical tools eg hardware and virtual tools and software are used in this practice? <i>Please describe in terms that a non-technical person would understand.</i></p> <p>Do learners own the tools? Can they borrow them for long term use? Are they able to take them out of the college? Can they be used 24/7?</p>
Reasons for using this technology	<p>Why was this technology chosen?</p> <p>Describe how it was adopted.</p> <p>What training is given?</p>
Relationship to learning outcomes	<p>How has use of this technology and this setting related to the learning outcomes?</p>
Support considerations	<p>What are the learning support implications? How has accessibility for a wide diversity of learners been taken into account?</p>
Technical support requirements	<p>What technical support is needed?</p> <p>What level and type of support has been made available?</p>
Resources	<p>What learning resources are used?</p> <p>Who prepares these resources?</p>
Access issues	<p>What issues, if any, around access to technology have been identified?</p>
Costs	<p>Are you able to give an estimate of the costs of using this technology/ this type of physical setting?</p>

<b>Pedagogic approach and learning tasks:</b>	
General pedagogic approach	<p>Describe the pedagogic approach taken.</p> <p>Is for example a particular type of learning aimed for e.g. project-based, collaborative, informal, apprenticeship, experiential, peer learning...?</p>
Learning tasks or activities	<p>What are the tasks or activities that learners engage in? (e.g are they gathering and evaluating facts, problem solving, acquiring skills, discussing ideas...)</p> <p>Please outline the general scenario and describe each task.</p>
Feedback	<p>How do learners receive feedback on their performance?</p>
Locus of control	<p>Who directs the tasks?</p> <p>Who performs the tasks, and in what roles?</p> <p>Who provides the feedback? (self, peer, tutor)</p>
Time allocated	<p>How much time do learners spend on these tasks?</p> <p>How is the time allocated?</p> <p>How much time is spent on getting to know the technology?</p>

<b>Outcomes for learners:</b>	
Impact of the activity	Is there evidence of impact e.g. from assessments, user statistics or other quantitative data?
Learner feedback	What do learners say about their experience of learning with this technology? How was this feedback collected? What have learners said?
Quotes	Are there any statements about the activity from those involved in implementing it that might be quoted on the website or in a JISC publication?

<b>Reflections:</b>	
Resource considerations	
Sustainability	
Risks	
Benefits	
Unexpected outcomes	
Plans for the future	
Advice for others	
Further information	Publications, web based reports
Related projects	

## Appendix C

### Consent form template

#### Print, Audio and Video Production Permission Form



I, the undersigned, consent to the use of my words, image, image of my work or recordings of my voice being used within a JISC publication or video case study. I understand that this will be used for educational purposes only and that copyright will reside with the Higher Education Funding Council for England (HEFCE) on behalf of JISC.

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Address

Email:

#### Participant's details

NAME

ADDRESS

Signature

Date

Case Study Ref: (For office use only)	
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