Inspiring Lecturers: Sharing E-Learning Practice through European Case Studies

Sarah Hayes[1], Mikkel Godsk[2], Majbrit Vandsø Andersen[3]

[1]School of Languages and Social Sciences, Aston University, Aston Triangle, Birmingham B4 7ET, UK, s.hayes@aston.ac.uk [2]The E-learning Unit, Aarhus University, Fredrik Nielsens Vej 5, DK-8000 Aarhus C, Denmark, godsk@adm.au.dk [3]The E-learning Unit, Aarhus University, Fredrik Nielsens Vej 5, DK-8000 Aarhus C, Denmark, mva@adm.au.dk

Keywords
E-Learning, sharing, best practice, inspiration, collaboration, repositories, pedagogy

1. EXECUTIVE SUMMARY

1.1 Background

Sharing best practice in e-learning, when undertaken as an active process, can provide valuable insights, with a real capacity to inspire. This has been our experience in collecting European university e-learning case studies. How this was achieved is the focus of this paper, which discusses a consistent approach to transferring knowledge that might be followed and developed by others. We will outline a methodology for sharing best practices of e-learning. We will explain how these cases, rather like short stories, were identified, gathered and communicated by the EUNIS E-Learning Task Force collaboration, using a database and a weblog (EUNIC, 2008). Some examples of the case studies are provided, with suggestions of ways to develop this process further.

1.2 How does this approach differ from other attempts to share good practice?

The authors of this paper acknowledge that the collecting and publication of e-learning case studies is by no means a new concept. However, in describing the approach adopted through the EUNIS E-Learning Task Force collaboration, a clear *process* will be outlined and explained. The invitation is thus extended to colleagues who support e-learning to consider whether they too might adopt this method and how they might extend or enhance it, to suit the needs of their own institution, or community of practice (Wenger, 2002). Indeed we would suggest that more work in this area of research might also support potential sharing and re-use of teaching resources through repositories. For instance, how can the benefits of a multimedia teaching resource, used successfully by one colleague, be communicated to another, if we do not reveal the case and context in which it was of pedagogical value?

1.3 The value of disseminating *the process* by which we share best practice

Many practitioners in universities are unaware of how their colleagues may be using technologies to support learning. In adopting a formal, methodological approach to the collection of such case studies of e-learning practice, comparisons between techniques can be drawn. Interviews with staff concerned, within a structure of carefully crafted questions, can reveal tacit experience to be shared. Such gathering of practices may also be aided, by provision of a database together with a web form that enables replies to be entered quickly by those contacted to discuss their practice. The finished case studies can be communicated to colleagues as brief, interesting, summaries of practice, within a readable template, giving details of where further information and support might be accessed. The case studies may begin life as a description, but they can soon develop into talking points leading to demonstrations and reification of good practice. Best practices are an important part of the process of introducing new technologies to support learning. Yet, of much importance here too is finding an *appropriate method* to identify, gather and communicate these best practices and this can indeed become a 'best practice' in itself.

2.   IDENTIFYING GOOD PRACTICES

2.1 Developing the idea of 'telling the story'

To briefly consider the popularity and structure of the 'short story' can lead into considerations about vocabulary, tradition, culture and common understandings across nations. Storytelling traditions can vary from country to country and yet retain features in common through history:-

" there is a group of narratives, probably the most significant of man's stories, which contains basic symbols of vital importance to storytellers and to their audiences since times beyond history" (Lord, A B, 1978)

Perhaps similarly, in the collection of case studies, these 'short stories' of a person's experience and teaching practice, using new technologies for learning, can touch on particular focal points that technologists, lecturers and students can appreciate from within their roles in European universities. Where then, for example, might be the 'sticky qualities' (Fullen, 2003) or focal points within these teaching practices using technologies that different European readers might identify with?

2.2 Defining the questions to ask to aid the transfer of knowledge

The EUNIS E-Learning Task Force group that met in Malta in February 2008 defined the following six questions as very useful to apply in an interview with a tutor where their practice with a new technology was to be discussed:-

1. What was the main objective, problem, driver or need?
2. What type of learning approach/theory was followed?
3. How was learning organised and what activities did your students do?
4. What did the technology enable? Did it support learning?
5. What feedback have you received from your students?
6. How might you change your approach in the future?

This approach builds upon a method developed during 2006 by Viv Bell, Sarah Hayes and Andrew Rothery, when they gathered e-learning case studies based around the use of the WebCT system at University of Worcester, producing a short publication (Bell, Hayes & Rothery, 2007) which was given to all teaching staff. The EUNIS E-Learning Task Force group that met in Malta was challenged to develop this process further to include European university examples of best practice. The group established a weblog, which they called: EUNIC (derived from a combination of EUNIS and C for Case Studies, but also a play on the word 'unique') to use to post practices gathered by the group from their own institutions for further comment. The Weblog can be accessed at http://euniccasestudies.wordpress.com/

2.3 Examples of replies to the questions

Four examples are now provided in this section to show the type of raw qualitative data collected in response to the questions.

Case Study 1: Helping students understand theoretical and practical aspects of "Adult education". Michaela Harmeier, University of Duisburg-Essen, Germany

What was the main objective, problem, driver or need?
Students have less knowledge of the job "Adult education" They need support for preparation and reworking their internships. As part of the course it is mandatory for the students to get practical

experiences, the internships are performed in companies or social facilities for 8 weeks. Typically, students have problems matching theoretical and practical aspects of "Adult education".

What type of learning approach/theory was followed?

A self-directed learning approach is the basis of my experimental game. The process is split into online sessions and classroom training (blended learning concept). The presentation of the work status, milestones and solutions is part of the cross-team classroom training. In every experimental game the job for the students is to establish an education institute for students. The major task has several sub tasks, e.g. marketing, program planning, teaching, evaluation, financials.

How was learning organised and what activities did your students do?

Having an experimental game with learning scenarios the students get knowledge of how a typical company for adult education works.

At first the students have to find a name for their institute.

At second the students have to organise themselves in work streams. The assignment of every single student to the work stream is done within the Moodle platform.

For every work stream a separate and complex job task is defined.

E.g. Works stream "Marketing": Development of a Marketing strategy for branding the institute and sales of training products.

What did the technology enable? Did it support learning?

Moodle is a platform that stores all relevant documents for each work stream. Each work stream owns and administrates their separate and protected working environment. Functions are a communication forum and a document warehouse. Questions can be placed in a special forum/panel for internal (work stream) respond. The various forums are tutored and monitored by me. A database for vacant internship positions is maintained and offered by me as well.

What feedback have you received from your students?

Log-on and activities tracking showed heavy usage of the Moodle platform. The platform is an accepted tool. The students validated an increased occupational knowledge, they feel skilled up and commended the professional and social aspects of the team work.

How might you change your approach in the future?

The involvement of external experts to get more into the practical direction is a future goal for me. I think of business reports, career forums, discussions with trainers in adult education.

Case Study 2: Enhancing learning and professional development through an e-portfolio system

Nur Kurtoglu-Hooton, School of Languages, Aston University, UK

What was the main objective, problem, driver or need?

Pebble Pad http://www.pebblepad.co.uk was integrated within the teaching practice element on the MA TESOL programmes in order to make the learning on the module more structured and to promote reflective skills.

What type of learning approach/theory was followed?

Encouraging the students to engage in reflective skills, as well as in peer learning. The theory involved experiential learning (Kolb, 1984) – "the process whereby learning is created through the

transformation of experience". The students were encouraged to use their comments, experiences, ideas, reflections, and action plans as elements of their own portfolio.

How was learning organised and what activities did your students do?

A webfolio 'Learning from Teaching Practice' was created with different pages of information for the students and blogs to which students could post messages. Students were encouraged to keep their own e-portfolio via tasks supplied as scaffolds. Tasks involved carrying out a critical incident analysis, the evaluation of a particular aspect of their teaching practice, and responding to a self-assessment proforma specially designed for use with the group.

What did the technology enable? Did it support learning?

Pebble Pad provided/enabled:-

• a platform for discussion via the use of a classroom skills' blog

• students' articulation of their learning (for example via the self-assessment proforma)

• formative feedback from tutors (for example via tutor feedback on each portfolio task, as well as feedback on action plans written by students)

• formative feedback from peers (via blogs, sharing of individual personal assets)

What feedback have you received from your students?

"If I write notes I can lose them but if I write them in PebblePad they are always there. I can log into my PebblePad any time and all my assets are there." (Hafizah, December 2008)

"A kind of a space that pushes oneself to meditate a certain issue." (Liling, December 2008)

"At first I wasn't sure, I thought it was extra load - I just wasn't appreciative enough. I've realised if you get to grips with it, it does empower you. It's quite liberating because you can communicate with your peers about academic issues. It's contemporary. It's posh." (Tendai, December 2008)

"If you don't write a lot then you won't get much value out of it." (Jiahong, December 2008)

How might you change your approach in the future?

Use more tasks as scaffolds. Arrange for more training sessions for the students and staff who use the system

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Case Study 3: Basic Clinical Skills – E-learning in the Veterinary Curriculum, Rikke Langebaek[1], Henrik Kaas[2], Mette Lybeck Rueloekke[3], Hanne Ellen Kortegaard[4], Jolle Kirpensteijn[5], Clinical Skills courses at Faculty of LIFE, University of Copenhagen, Denmark

What was the main objective, problem, driver or need?

Basic Clinical Skills are taught in small groups, dominated by teaching of concepts and theories by means of lectures and books. The method was time consuming - eating away valuable hands-on time and was relatively dull for students and teachers alike. By using e-learning, video-cases and video-performances the students are now presented with all the theoretical topics on-line. They are guided by use of narrated Power Point presentations and the narrated video-demonstrations show them, step by step, how to perform the individual clinical or surgical procedure. Consequently, the students now turn up in class well prepared and ready to practice their newly acquired knowledge.

What type of learning approach/theory was followed?

On-line teaching in combination with the Skills Lab makes this optimal preparation possible. Not only can the students go back and repeat all the basic surgical skills (both on-line and in the Skills Lab) before going to the operating room, they are also presented (via narrated videos and PowerPoints) with all the surgical procedures that they are asked to perform. While doing surgery on pigs, the performances of the students are filmed on video so that they can watch themselves on-line the following day. This helps them identify their own mistakes and identify themselves as 'surgeons'. Only the students filmed have access to these personal videos.

The students access the subjects both by reading, listening and watching. This is of course combined with 'doing' when they turn up in classes and practice the skills.

Our objective has been that the more approaches you have to a subject, the greater the chance of the students 'getting the point' and the better the chance of the students not getting bored!

How was learning organised and what activities did your students do?

By placing all the theoretical lectures on-line we can now spend the entire length of the course practising hands-on procedures. In class, students work with in house dogs and cats, with stuffed toy animals, with cadavers and with research pigs. During the course the students are also shown video-cases, presenting them with clinical cases that they would otherwise have little chance of ever observing. Additionally, videos illustrating the problems of Client Communication are shown and discussed in the classroom. Finally, during the performances of surgical skills, the students are filmed, so that they can watch themselves on-line the following day.

What did the technology enable? Did it support learning?

A considerable improvement in the students performances in Basic Clinical Skills. Time saved has given us maximum hands-on time. It has also given us an opportunity to deal with subjects that were previously neglected because of the limited amount of time available. Students being able to watch how to perform a skill – repeatedly, if necessary, is a very welcome improvement to the curriculum.

For making the narrated Power Point Presentations, Adobe Presenter was used.

The videos were filmed, edited (Pinnacle) and narrated at the Department of Small Animal Clinical Sciences, LIFE. The recorded videos were encoded to flash video (On2 VP6) and uploaded to the e-learning platform together with a flash video player at the IT Learning Center. Multiple choice tests were made on the e-learning platform.

What feedback have you received from your students?

Not only were the students thrilled to have so much more time to practice, they mentioned in particular, that the on-line teaching was a great asset. It was extremely helpful to be able to:-

- Prepare at own chosen time, place and pace
- Repeat the lectures
- Repeat the video-demonstrations
- Listen to the presentations without having to watch (…do the dishes at the same time!)
- Watch how to perform surgical procedures instead of just looking at a drawing
- Watch how to perform the clinical examination and handling of the patients
- Watch clinical cases on video
- Work with the subject 'Client communication'

How might you change your approach in the future?

As a result of the positive outcome of applying e-learning to the Basic Clinical Skills course, the creators are in the process of developing similar material for other courses at the Department of Small Animal Clinical Sciences.

Case Study 4 The Engwiki project at the Faculty of Organization and Informatics, University of Zagreb, Croatia. Andreja Kovacic, Miran Zlatovic

What was the main objective, problem, driver or need?

The idea to use e-tivities with a wiki in teaching English came from the project leader (Andreja Kovacic, lecturer) who also contributed to the Engwiki project with ideas for e-tivities, preparation for their use in class, actual use in teaching groups of students, and evaluation of student work.

The most important goals of this project were: (a) to test the applicability of wiki technology in teaching English for Special Purposes (ESP) and English as a Foreign Language (EFL) at the university level; (b) to innovatively use a wiki by engaging the students in various types of individual and collaborative online learning activities (e-tivities); (c) to evaluate each e-tivity so that other second language teachers could choose the most suitable; and (d) to disseminate project outcomes over the wiki website, international conferences and publishing of research papers.

What type of learning approach/theory was followed?

Traditional learning paradigms, such as cognitivism and constructivism, and novel learning paradigms can be implemented through the design of online learning activities or e-tivites. A total of 23 e-tivities were (re)designed for use in the Engwiki project. The technological aspects of a wiki tool in e-learning cannot be analyzed separately from its pedagogical potential and in the Engwiki project this tool was used in accordance with following guiding principles and potential outcomes of constructivist learning (adapted from: Iverson, 2005; Seitzinger, 2006):

• Multiple perspectives were supported with diversity of representations of concepts.
• Cooperative/collaborative (peer-to-peer) learning to expose students to alternative viewpoints.
• Objectives of learning activities were at least partly identified by students.
• Relevant and authentic learning content and tasks were used.
• Interactivity was achieved with active engagement with online course elements.
• The learning was problem-based in many e-tivities.
• Instruction was learner-centered. The instructor tried to assume the role of guide and facilitator.
• Students' self-analysis, self-regulation, reflection, and awareness were encouraged
• The emphasis was on knowledge construction instead of knowledge reproduction.
• Independent exploration, knowledge search and presentation was as a favoured approach.
• Students sometimes engaged in language tasks that slightly surpassed the limits of their ability.

How was learning organised and what activities did your students do?

These e-tivities can be categorized as: (1) predominantly open-ended or extensive, with tasks that are apparently non-linguistic and tend to have a prominent communicative profile (e.g. activiti(2) less open-ended e-tivities, with predominantly intensive (controlled) tasks, characterized by focus on accuracy (e.g. vocabulary-related e-tivities and structure-related e-tivities); (3) information-gap simple e-tivities or 'session openers' (through them students both get to know each other and become familiar with using a wiki as a tool). Groups of approximately 10-30 students were engaged in three separate studies.

What did the technology enable? Did it support learning?

The open-source MediaWiki (www.mediawiki.org) was used for the Engwiki project. This technology proved to be easy to use, simple and efficient, as well cost effective.

Social software like wikis and weblogs can be used in language learning to encourage student interaction and discovery while helping the students acquire the linguistic content of the language course. Wiki systems may overcome isolation in distance learning and help connect students through synergy in the co-authoring of online documents, in creativity and critical thinking during collaborative group activities, and in increased participation in the creation of learning content and in problem solving (Bruns, 2005; Majchrzack, 2006).

For the teacher, 'formative evaluation' in the form of an on-going needs analysis can lead to insights which can subsequently be built into the next stage of the course (Dudely-Evans, 1998, p. 17).

What feedback have you received from your students?

The outcomes of the Engwiki project were evaluated by student surveys Most of the 23 analyzed e-tivities with a wiki were positively evaluated by students of the ESP/EFL course. Furthermore, the overall use of the wiki was evaluated comparably to other traditional in-class exercises and out-of-class activities such as home assignments.

How might you change your approach in the future?

In the future, even greater flexibility and modularity may be expected, moving away from firmly prescribed topics and instructions toward negotiated topics and greater student involvement in e-tivity design. It has been proposed that students be involved in searching for technological solutions to expand the system's functionalities. It is true that even such improved learning conditions will not work with all students. In some cases, however, it has worked miracles and in many others changed the students' learning experience. We can therefore conclude that deploying Engwiki has been successful in taking 'the classroom into the real world that the students inhabit', and bringing 'their real world into the classroom' (Harding, 2007, p. 8).

The above accounts have been included to indicate how diverse these 'stories' of e-learning practice can be. These, and others, were accompanied with appropriate screen shots and images to further clarify benefits. The case studies were then written into the template that can be seen in section 4 of this paper. In the next section the methods used to gather the practices are discussed.

3.   USE OF A MODEL TO GATHER GOOD PRACTICES

3.1 Interviewing technique

Fullan refers to 'sticky qualities' as the memorable inspiration and ideas that move us to action, following interaction with others. In short, the stickiness is motivational, perhaps inspirational. The choice of a case study method to try to capture practice is useful because it allows us to analyse the 'multifarious phenomena' that might help to establish patterns (Cohen and Manion, 1986)

An interviewing technique can provide a flexible method for capture of the practice in the lecturer's own words and experience. Examining the emerging themes from discussions with lecturers can help to refine the questions to ask in future interviews. The questions that are listed in Section 2 of this paper were derived in this way. Participatory action research (PAR) is a methodology which can be used for intervention, development and change within groups and communities. PAR can be defined as "collective, self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own social…practices" (Kemmis & McTaggart 1988: p.5)

It is referred to as active co-research because it is conducted by those, and for those involved, to establish results and directly apply them. So actions can be researched, changed and re-researched within the research process by participants.

Some of the EUNIS E-Learning Case Studies were collected in this way, via a face-to-face interview. Some were through email to lecturers known to members of the EUNIS E-Learning Task Force Group.

3.2 The "Web Form" Approach

A further method was developed and tested by Aarhus University in Denmark in the form of a MySQL database linked to a PHP-based web form to allow ease of 'deposit' of the replies to the questions. A basic set of six questions has been made available as a web form with an underlying database (see "Defining the questions to ask to aid the transfer of knowledge") (plus an additional question regarding the used technology).

Figure 1: The Web Form at Aarhus University

A link to the Web form was published on the university virtual learning environment and, in order to gather as much data as possible, a number of people had to be contacted and asked for their input.

A list of potential contributors was compiled and approximately one hundred people were contacted and asked to answer the questions. To increate the response rate, a small prize was offered. The quality and quantity of the responses are currently unknown
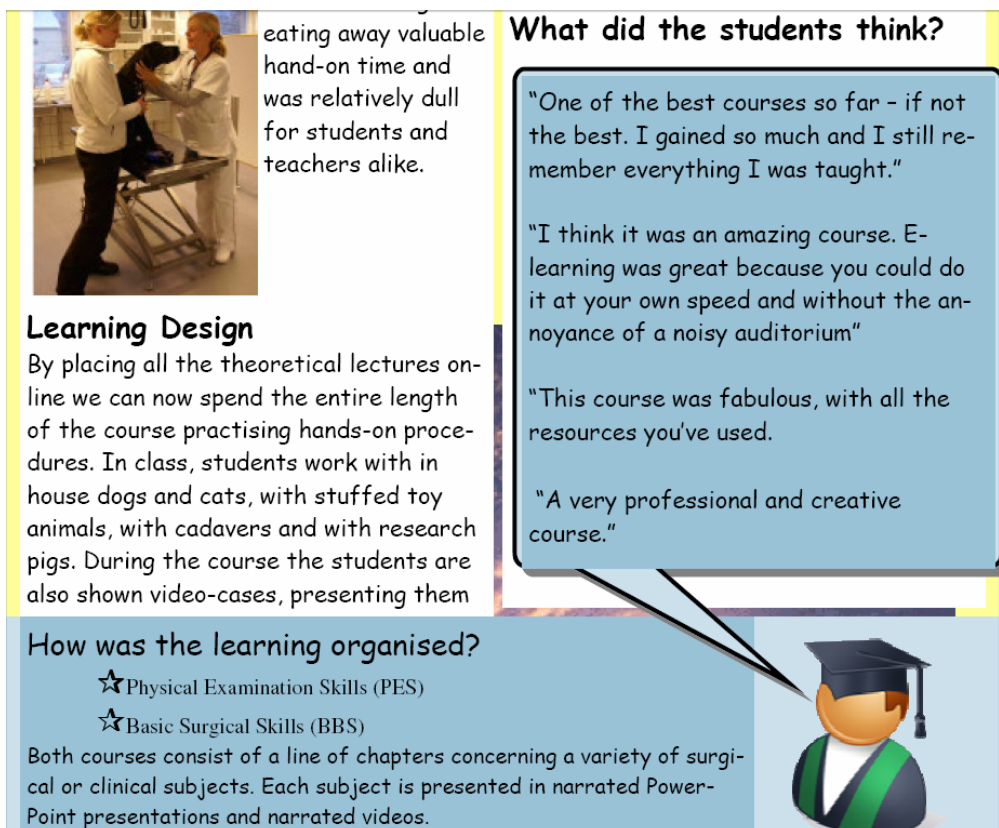
As a supplement to the web form we have conducted systemic and dialogue based interviews realized as four audio podcasts. These interviews are less structured than the web form responses, and thus more difficult to pass on or quantify. Based on the experience in communicating with the various teachers, certain trends emerge. Firstly, it seems easier to engage in a dialog consisting of open ended questions. The teachers are more open to enter a discussion than a monologue.

Secondly, more information is gathered through dialog than a web form because there are no boundaries. In the web form approach, only answers to the six questions are compiled. This provides a very inflexible framework for the information gathering, but which may be very useful when comparing many different results. However, it does seem to make the teachers feel limited in their expression. The drawback to this free approach is the sheer extent of the subsequent data mining and information gathering. As the information is given in natural language, it has to be processed, dissected, and formalized for it to be useful in a larger context. This work has to be done manually.

Thus, there is an inherent dilemma in the two approaches. One provides factual, organized information, while the other provides more - but unstructured - information. In other words, the first approach is directly compatible with the EUNIC project and cross-institutional sharing of practices, while the dialogue based approach at Aarhus University is seen as an additional experiment to locally collect good e-learning practice.

4. DEVELOPING AND COMPILING THE PRACTICES

4.1 Template

Figure 2: An extract from Case Study 3: Basic Clinical Skills - E-learning in the Veterinary Curriculum

The template for publication of the case studies was developed in Microsoft Publisher, using the questions to provide the 'headlines' to capture the interest of the reader. Sections of the template for compiling the case studies can be seen in the examples in Figures 2 and 3.

In figure 3 below it is possible to see how certain themes emerged and these can aid comparison between lecturer experience as the collection of case studies grows.
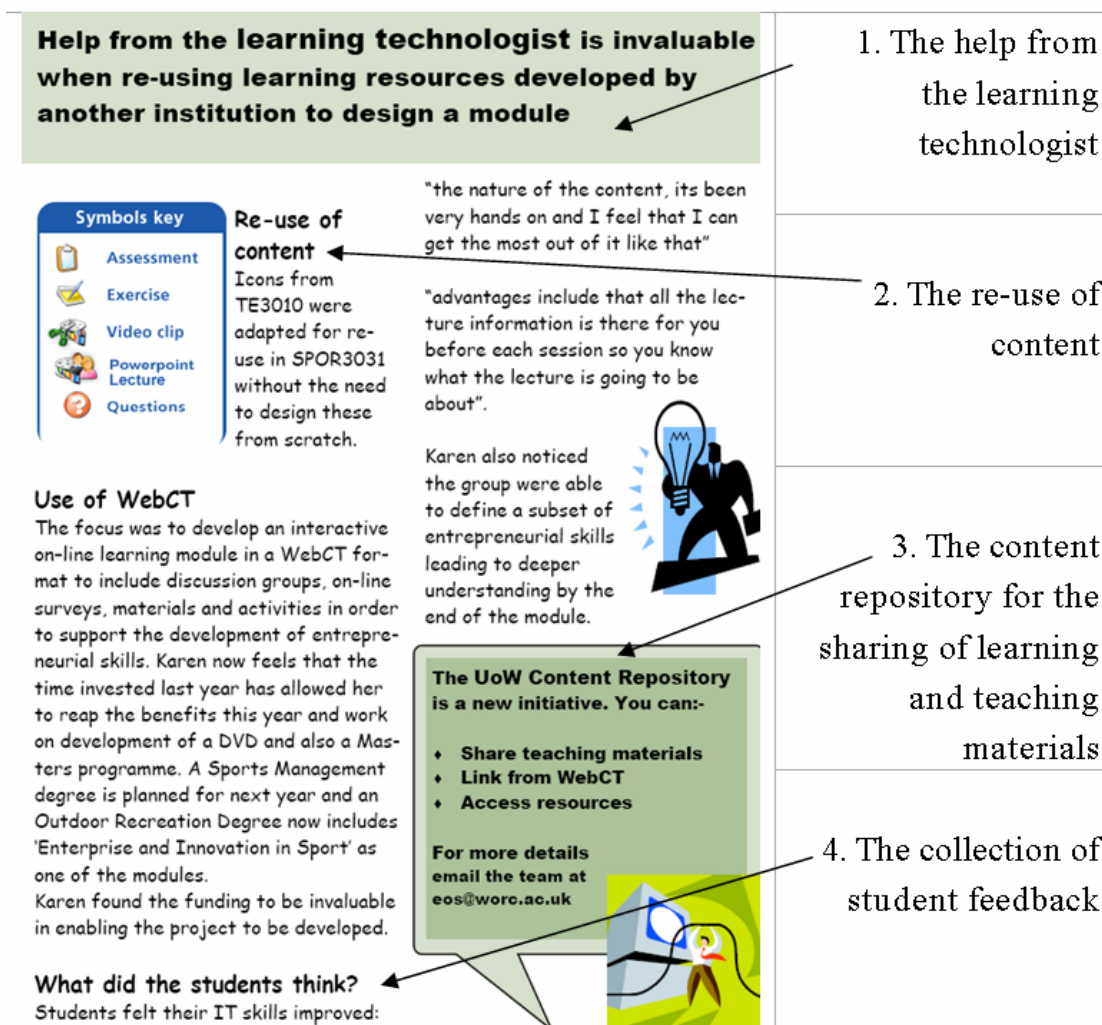

Figure 3 Four clear themes are identified in this case study from University of Worcester, UK

4.2 Weblog

The weblog shown in Figure 4 allowed the EUNIC group to comment on the different case studies as they were uploaded. The intention was to gather the case studies into the Weblog and discuss a more formal publication method for the collection. The EUNIC group used the Weblog, together with a mailing list. Finding suitable time slots to communicate with European colleagues in this type of research is not easy and it was helpful that we were able to also meet face-to-face occasionally to further define our activities and seek further contributions.

Figure 4: The EUNIC E-Learning Case Studies Weblog

4.3 Publication and demonstration

Publishing the case studies in a booklet, as well as online, can be valuable because these can be distributed at meetings and passed around a university for comment. At University of Worcester, some posters of the case studies were commissioned to be printed and shown at events. A copy of the booklet of case studies was given to every lecturer and the lecturers featured were invited to discuss their practice at seminars for other lecturers to ask further questions.

At Aarhus University some additional formats of publication have been implemented and/or considered:

- a searchable archive based on the database
- various multimedia exemplifying the case (e.g. a podcast or flash video)
- a wiki (not yet realized)

In general, compiling cases in a database makes it possible to include and publish information dynamically in many ways. It would e.g. be possible to develop a search feature for cases describing a use of a certain technology for a certain learning approach. It would also be possible to search for solutions for specific educational problems or objects.

Podcasts and flash videos exemplifying cases may be relevant under the motto: "practice what you preach" (that web-based technologies are used to encourage these technologies in teaching practice) and to provide additional and possibly more convincing ways to communicate good practices. Aarhus University is currently experimenting with audio podcasts of teachers explaining their good practice.

The wiki approach is an idea that sees the interest in a more interactive sharing of good practice between the local teachers. If a critical mass of interested people would start using a wiki based approach, the information would continuously grow and automatically and frequently updated. The rough edges would be honed over time, and a quality reference site may emerge. With all wiki projects, the turning point is the critical mass of users. With too few users, the data will not be updated sufficiently to encourage new or returning users, thus killing it over time. However, to realize a useful wiki would require a kick-start and continuous, manual follow-up.

5.   CONCLUSIONS

5.1 Embedding good practice by sharing the *process* as well as the results
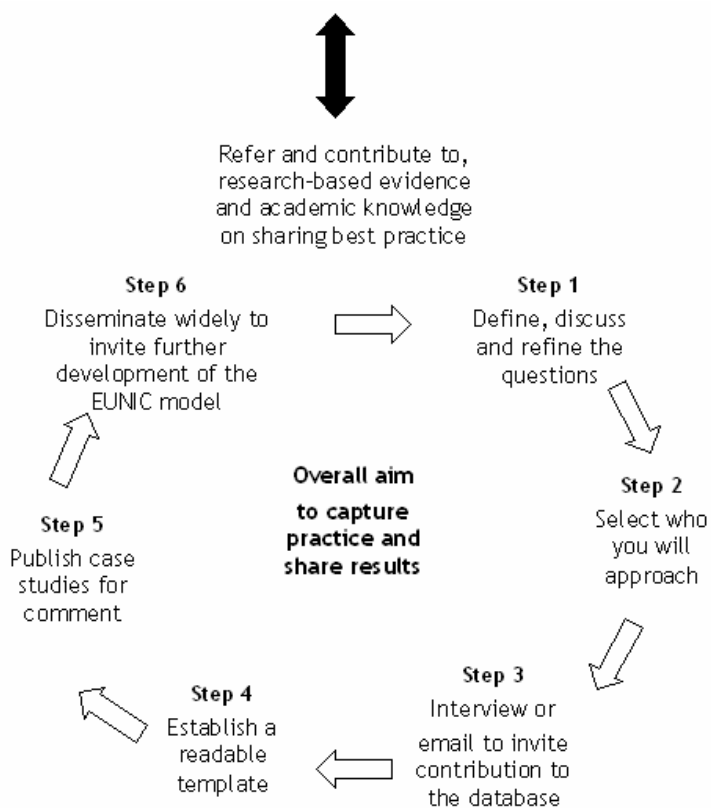

Figure 5 The EUNIC Model

To summarise the process used by the EUNIC group and the EUNIS Task Force groups that have met since, the model in Figure 5 shows the steps in our approach.

The case studies grow from the responses to the questions and though they may begin life as a description, they soon develop into talking points leading to demonstrations and reification of good practice. How the methods have been adapted and applied at both University of Worcester in the UK and University of Aarhus, Denmark, have been discussed in this paper. The authors believe it is important to retain a fluid approach that allows institutions to adapt this model to suit staff and student preferences and working practices.

There is also a challenge here that, within the processes that encourage re-use of teaching resources through repositories, we might find methods to enable both the teaching materials to be captured and shared but also the pedagogical advantages experienced by those who used or created the materials.

Encouraging students to contribute to this process and share their practices can often lead to discussions on issues of quality. There is active JISC-funded research underway in the UK currently to support lecturers in releasing teaching materials into a range of open access platforms. It is important that we develop communities within subject areas to support and sustain these initiatives.

5.2 Benefits of EUNIS Task Force collaboration and further development

Cultivating communities of practice (Wenger, 2002) is a valuable and much-discussed notion that merits mention here because such concepts as building a body of knowledge, methods, stories and cases are actively demonstrated in the EUNIS E-Learning Task Force collaboration.

"If you want…to bring about a fundamental change in people's belief and behaviour, a change that would persist and serve as an example to others, you need to create a community around them, where these new beliefs could be practiced, expressed and nurtured." (Gladwell, 2000 p. 173)

Best practices are an important part of the process of introducing new technologies to support learning. These can be gathered and presented in a way that 'tells the story' of a teaching experience, but also answers common questions that would be likely to be asked by lecturers, whatever their location, about the teaching practice and the technology that supported it.

Equally, shifting the focus to compile student case studies of experience in the use of technologies for learning would be another way to reveal insights into practice across European universities.

This paper has discussed the importance of finding an *appropriate method* to identify, gather and communicate lecturer best practices when using technologies to support learning and we would suggest that the method chosen can indeed become a 'best practice' in itself. It is hoped that others will consider in what further ways this model might be developed and enhanced.

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