Using The E-portfolio: The Trainees' Perspective.

Case Study 5: E-portfolios as Progress File for Under- and Post-Graduate Nursing Students.

Context 2: Transition Higher Education to a Work-based Setting

Institutional Context

The University of Leeds School of Healthcare offers 41 courses at certificate, diploma, undergraduate and postgraduate level. The school has invested in elements of e-learning and the school's website
http://healthcare.leeds.ac.uk/pages/learning/learning.htm
provides examples of e-learning activities which are delivered through on-line video activities. In 2004/05 the department admitted 3'000 students to its undergraduate courses (Source: http://www.leeds.ac.uk/about/annual_report/statistics.htm).

The Dearing report (Dearing 1997) introduced the concept of Progress Files for under- and post-graduate study. This has developed over the intervening years and from 2005, universities had to introduce a form of Personal Develop Planning (PDP) into the curriculum. The University of Leeds introduced PDP in 1994 and The School of Healthcare has been using paper-based reflective logs as part of professional practice.

The Challenge and Established Practice

Nursing Students have been utilising paper based PDP records since 2000
A large part of this reflection occurs on clinical placements when the students are placed in wards and care environments around the local area. As part of these placements students are required to complete 'Practice Evidence Records' detailing their activities and linking these to specified learning outcomes. These evidence records are commented on by tutors at the university and qualified nurses on placements, who act as mentors to the students.

Paper-based PDP activities have been an integral part of Nursing courses . The challenge lay in transferring these activities to an on-line Progress File.
The use of the electronic version would be voluntary and those students not wishing to participate would continue with the paper-based version. As well as the students, tutors and educational supervisors employed in placement institutions would need to be trained on the use of the e-portfolio.

Introductory sessions were arranged to introduce the e-portfolio to students. They could then decide to use the e-portfolio to record achievements or continue to use the paper-based version.

In total 45 students attended 2 training sessions in June 2005, out of these 7 students decided to use the e-portfolio to record their PDP and track progress. In October 2005 24 first-year undergraduate students were offered the use of the e-portfolio, all agreed

to use the facility. Their tutor also agreed to use the e-portfolio and composed exercises for inclusion in the tool.

Learner Activity

Pedagogical/Technical Approach

The e-portfolio was designed within the Leeds University open source VLE, Bodington, and its logbook extension. (See http://www.jisc.ac.uk/index.cfm?name=deletbod3ple for the DeL tools project website)

The e-portfolio was designed directly from the paper-based progress file materials.

The PDP record is split into 12 sections :

- **Introduction**
- **Progress File Tutorial**
- **Who To Contact**
- **Privacy**
- **Notepad**
- **Personal Information**
- **Academic and Personal Support**
- **Assessments**
- **Reflection and Skills**
- **Cluster Documents**
- **Work-based Learning**
- **Clinical Skills Recording**

Learners upload their 'Practice Evidence Records' into the e-portfolio and are able to receive feedback from a variety of sources: University tutor and educational mentor. They can use the detail and feedback from the evidence record to cross-reference to the list of skills and scenarios in the 'Clinical Skills Recording' section. The students are also provided with space to reflect on activities and situations and, if they wish, can publish these thoughts for comments by tutors and mentors.

The also have on-line access to their personal tutor and can keep their personal details up to date electronically.

Intended Outcomes

The process of compiling an e-portfolio aims to:

- Enable students to record and monitor their progress.
- Provide private space for students to reflect on their work and progress.
- Enable educational supervisors and tutors to provide feedback remotely.

The e-learning Advantage

Emerging Student View

A mid-point evaluation took place in November using an online questionnaire. A questionnaire was sent to both students and tutors. The students' questionnaire was designed to measure the ease of use of the e-portfolio, it's most useful sections, the skills that the use of the e-portfolio has developed and explore issues of ownership. The tutors were asked their thoughts on the online progress file and what impacts, if any, it had on PDP and learning.

Four students (n=7) and 2 tutors/educational supervisors (n=4) returned data.

A second questionnaire was sent to students in July 2006 (n=31). So far 8 students have responded . This questionnaire focused on the students' use of ICT, their use of the e-portfolio, general thoughts about e-portfolios and attempts to measure factors that affect engagement with e-portfolio usage.

Training

None of the respondents to both surveys had used an e-portfolio before and 5had been using the e-portfolio regularly.

Three of the students felt that they had received adequate training on the use of the e-portfolio

Only 1 student found using the e-portfolio easy with 3 others stating that they had experienced some problems

One student experience no problems using the e-portfolio but the other students experienced problems in the following areas: Granting permission to their supervisor to view their work; uploading files and making entries.

Non-users

Seven of the students who returned questionnaires (n=12) have not used the e-portfolio. Their reasons are illustrated in table 1 below (students were asked to tick all reasons that applied to their non use):

Reason For Non-use	Number
Didn't have time to learn it	2
Didn't understand how to use it	4
Forgot all about it	3
No access to computers	0
Don't like computers	1
Other: "Seemed complicated" "It was just something extra on a long list of work that needed to be done and wasn't a priority"	2

Table 1: Reasons for non-use of the e-portfolio

One student expanded on the reasons for non-use by stating,

"It's a nice idea but I just can't see how it can fit into my life when: I am at uni, working a part time job, 30+ hours on placement, uni work when I can and having some sort of social life to keep me sane."

Non-users also stated that they did not believe that the e-portfolio offered them any additional features to storing work on their own computers,

"Didn't understand what I was doing and was easier just to use the methods I was used to."

and

"I just thought it was a complicated system. At first I thought it would be a good way of storing information, then I realised I could just as well store it under "my documents" on the university server. I didn't use it for other things."

Users

Users were asked to list the main reasons why they wanted to use the e-portfolio. They were asked to rate factors from 1 to 6 and give 0 to those factors that had no influence on their use. The results are listed below:

1.   Believed it would make me reflect more effectively
2.   Liked the idea of having everything in one place
2.   I like to be involved in new developments and technology
2.   Ease of use
5.   Thought it might improve my organisational skills
5.   Liked the idea of being able to receive feedback from tutors on my work
7.   Liked the idea of being able to share my work with others

Usage

Peak use of the e-portfolio, as collected from the system log, correlates with the beginning and end of placements.   An investigation of the e-portfolio log shows that the most heavily used section of the e-portfolio tool was the 'Assessment Record' with 6 of

the students regularly using the e-tool to upload evidence records whilst on placement .
Three students have also used the e-portfolio to make reflective comments about their
experiences.

When asked which part of the e-portfolio they had found most useful, three of the
respondents stated thought the 'Reflection and Skills' section to be the most useful part
of the e-portfolio, 2 felt that 'Academic Support and Advice' was the most useful and
only 1 found the 'Notepad' section (used to make notes) to be of any use.
When asked what skills the use of the e-portfolio had helped to develop the following
answers were noted, as recorded in Table 2 below:

Section "Has the e-portfolio helped you to?"	Trainees
Organise Your Time	1
Develop Reflective Skills	3
Track Your Competences	3
Identifying Skills and Weaknesses	2
Record Your Achievements	3

Table 2: Responses to question about 'helpfulness' of e-Portfolio (n=5)

Students also noted that using the e-portfolio,

"Makes assessment easier"

and

"…we needed more detailed instructions than we were given verbally [about
assessment]"

Enriching Learning
The e-Portfolio is seen by trainees as a useful device for enabling them to develop
reflective skills and track their competences.

Three of the students mentioned that the feedback they received through the e-portoflio
was a useful aspect of usage.

"Despite the teething problems I have found the e-portfolio very useful even just as a
store of all my records. I feel as I get to grips with it I will find it more useful I think it is
something nursing students should be encouraged to use - it's a great idea especially
as you are able to get feedback from tutors as well as mentors".

And
"I have found the helpful criticism useful"

and

"helpful feedback"

Time Spent on Reflection and Recording Activities And Feedback

Users of the e-portfolio are spending more time on reflective activities than non-users.
See table 3 below:

	Users	Non-users
Average time (hrs) spent on reflection and recording activities per month	7hrs50mins	6hrs24mins

Table 3: Time spent on reflection and recording activities per month

Users of the e-portfolio report receiving feedback more frequently than non-users with
the majority of users, 66.6% (4), hearing from their tutor or supervisor once a month or
more frequently compared to the majority of non-users, 60% (3) who are receiving
feedback less than once a month.

Ownership

Eighty percent of the students who completed the questionnaire felt that they owned the
contents of the e-portfolio. When asked why they felt like this one student responded'

"It's my own personal space."

The student who felt that the university owned the e-portfolio noted because,

"It's on your computers"

Non-users vs Users

The data collected enabled a comparison to be made of the internet usage of both e-
portfolio user and non-user groups. Figure 1 below illustrates the differences:
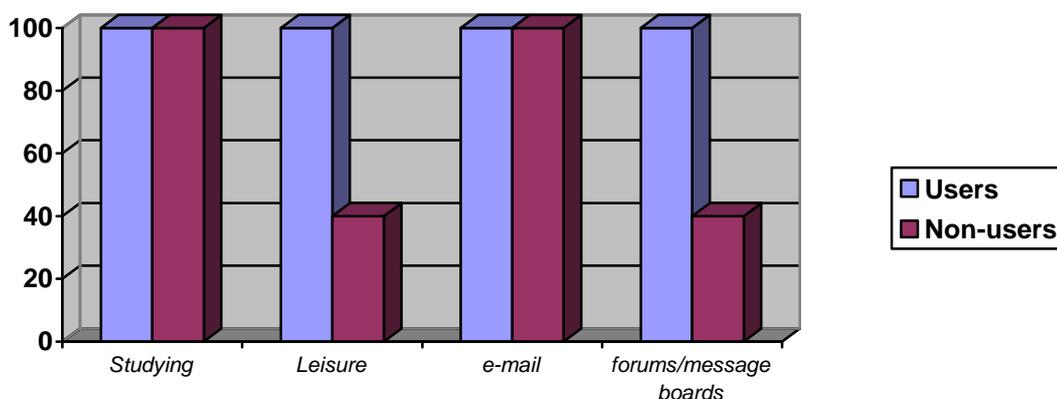
Figure 1: Student use of the Internet

From the data collected so far E-portfolio users are more likely to use the internet for leisure purposes i.e. shopping, booking holidays and for joining in forums than non-users whose internet usage focuses mainly around using the internet to gather information for their course. However 3 of the non-users have their own blog and/or website. Non of the users utilized these facets of internet usage.

The majority of non-users 60% (3) did not feel that everything they placed in the e-portfolio was confidential, 50% (1) of the users felt this way.

Future Usage

When asked what would make them want to use an e-portfolio in the future the majority of respondents, 57% (4) stated, Applying for a job and putting together a collection of artifacts to share with others as the main reasons. Forty-two percent of the users (3) felt that using an e-portfolio as a tool to track their own qualifications was useful. Seventy-one percent (5) felt that the main purpose of an e-portfolio was to enable them to share work, photos, c.v's etc. with others for the purpose of feedback.

Tutors perspective

Tutors and clinical mentors within the hospitals were trained on the use of the e-portfolio tool.

There were however some problems in accessing the work of the students due to permissions not being granted.

Tutors have noted an increase in the reflective skills of the students through the use of the e-portfolio and the majority of tutors and mentors have been using the e-portfolio alone at work to provide feedback to students.

They state that they believe the use of the e-portfolio has improved the communication between tutor and student and has enabled them to track development by looking at previous entries.

One of the tutors felt that the use of the e-portfolio had assisted in the assessment process and 1 felt it had not because they had experienced difficulties in accessing the students work.

One of the biggest advantages of the e-portfolio usage has been the ability to give detailed feedback to students whilst on placement rather than provide this at the end of the placement when they would be more than one report to assess. The e-portfolio has speeded up the provision of relevant and usable feedback.

Since the launch of the e–portfolio pilot there have been changes to the course assessment procedures and students are no longer required to complete practice assessment documents. Through the evaluation of e-portfolio usage it was noted that this was the main section of student usage. The department is currently investigating ways of reorganising its progress file system building on good practice in other departments and lessons learned from the e-portfolio pilot**.**

Emerging Points for Effective Practice

- More time needs to be allowed for training particularly outside of the university
- Students need to be able to link the skills evidenced through their placement reports with the other sections of the progress file. It needs to be promoted to them as a complete tool.

Conclusion

The use of the e-portfolio has been effective in developing reflective skills amongst students and the majority of students view this as the main reason for use an e-portfolio tool.

The feedback capabilities of e-portfolio usage have been utilised and led to direct and quicker feedback being provided.

Some technical problems occurring with staff outside of the university where access to immediate support is not available.

Students are only using the parts of the e-portfolio that are of immediate and beneficial use to them i.e. placement reports.

The use of technology is not a barrier to the use of an e-portfolio. It is the content of the e-portfolio tool and the notion of 'Added Value' that attracts students to e-portfolio usage.

The majority of non-users view the use of the e-portfolio tool as an 'addition' to their workload not as a tool to enable them to manage their workload more effectively.

There were also concerns, from users and non-users, about the confidentiality issues of using e-portfolios to store work.

Although the benefit of sharing work with others was not the major reason for initial e-portfolio usage, the majority of students believe that this facility is the major reason for using an e-portfolio in the future.

Author

Christopher Murray 16/03/06
Updated 16th Aug 06