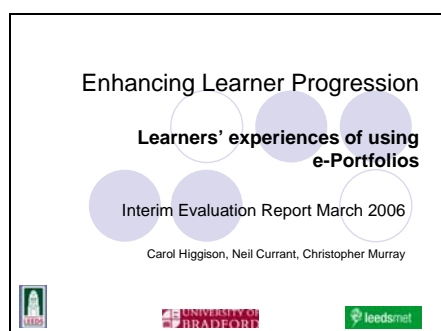


The Enhancing Learner Progression (ELP) project



Learners' experiences of using e-Portfolios

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**Interim Evaluation Report
March 2006**

Introduction	3
The partnership.....	3
Student Lifecycle Model.....	3
Project Contexts and Cases	3
Potential Benefits of Portfolios	4
Benefits of e-Portfolios.....	4
Evaluation Focus	4
Context 1	5
Moving from School/FE into HE.....	5
Institutional Drivers	5
Case Studies 1, 2 and 3	6
Participants.....	6
Findings: Use of e-Portfolios.....	6
Findings: Benefits of technology	6
Findings: Reflective Learning	7
Findings: Decision making and applying to HE.....	7
Findings: Application to HE.....	7
Findings: Personal Learning Tools	8
Findings: Implementation.....	8
Context : Preliminary Summary	9
Context 1: What next?	9
Context 2.....	10
Moving from HE into workplace settings.....	10
Case Studies 4 and 5	10
The e-Portfolio	10
Findings: Use of e-Portfolios.....	10
Findings: User experiences	11
Findings: Benefits of Technology.....	11
Findings: Reflective learning.....	11
Findings: Implementation.....	12
Context 2: Preliminary Summary	12
Context 2: What next?	12
Context 3.....	13
Transfer between institutions.....	13
Context 3 participants	13
Findings to date	14
Staff experiences	15
Student experiences	15
Context 3: Preliminary Summary	15
Context 3: What next?	15
Evaluation Summary	15

Introduction

The ELP Project

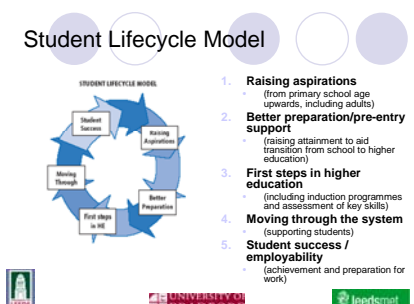
- Universities of [Bradford](#), [Leeds](#) & [Leeds Metropolitan](#)
- Part of JISC funded [Distributed e-Learning programme](#) (DeL)
- Exploring use of e-portfolios at various stages of transition in the student lifecycle model (Bradford 2004)




The partnership

The ELP project is a regional partnership between the Universities of Bradford, Leeds and Leeds Metropolitan, part of the JISC distributed e-learning programme. The project is exploring the use of e-portfolios in a number of different contexts particularly at transition stages in the student life cycle model.

Student Lifecycle Model



- Raising aspirations**
 - (from primary school age upwards, including adults)
- Better preparation/pre-entry support**
 - (raising attainment to aid transition from school to higher education)
- First steps in higher education**
 - (including induction programmes and assessment of key skills)
- Moving through the system**
 - (supporting students)
- Student success / employability**
 - (achievement and preparation for work)




Student Lifecycle Model

The model has five key transitions from raising aspirations in school children through to entering Higher Education and progressing into employment.

The 3 contexts: 6 case studies

Transferring from

- School/FE into Higher Education
 - Bradford, Leeds and LeedsMet (3 cases)
- HE into workplace settings
 - Leeds (2 cases)
- Between institutions
 - Bradford and Leeds (1 case)



Project Contexts and Cases

The project explores the use of e-portfolios in three different contexts:



- Students moving between school/FE and University (stages 1 and 2 of the student lifecycle model)
- Students moving from University into the workplace - both placement experience and moving into first career positions (stages 4 and 5 of the student lifecycle model).
- Students transferring from one HE institution to another (stage 4 of the student lifecycle model)

In this report we present the interim findings from our exploratory evaluation to March 2006. The project is continuing until July 2006 to enable us to support the pilots to the end of the 2005-06 academic year.

Potential benefits of portfolios

- Reflective learning and practice
- Personal development planning
- Helps relate theory to practice
- Promotes self-esteem and confidence
- Increase in self-knowledge
- Encourage learner autonomy and self-direction
- Organisational benefits

Sources: Challis (1999), Hartnell-Young & Morriss (1999), Joyce (2005), Mathers et.al (1999)

Potential Benefits of Portfolios



The findings related to portfolios and e-portfolios in the literature report potential benefits which include:

- Encouraging reflective learning.
- Aiding personal development planning.
- Helping practitioners relate theory to practice.
- Promoting self-esteem, confidence and self-knowledge.
- Developing learner autonomy
- Benefiting organisational learning as well as individual learning.

Additional potential benefits of e-portfolios

- Greater flexibility
- Multi-purpose use
- Multi-media, interactivity
- Communications
- Publication benefits

Sources: Armitage (1998), Clegg et. al.(2005:13), Greenberg (2004), Woodwood & Nanlohy (2004)






Benefits of e-Portfolios

E-portfolios bring a range of technology tools that have the potential to enhance portfolio learning. E-portfolios allow for greater flexibility and use of the portfolio material. E-portfolios can be more interactive and include communication tools that can speed up feedback and create communities of practice. They also offer the ability to publish to the world via the Internet.

Evaluation - Key areas (Sharpe, 2006)

- **Experiences:**
 - What is the experience of learners and practitioners of using an e-portfolio tool?
- **Enrichments:**
 - What use has been made of the e-portfolio tools to enrich the teaching and learning experiences at the two transition stages?
- **Implementation:**
 - How have the e-portfolios been implemented in the different contextual case studies?

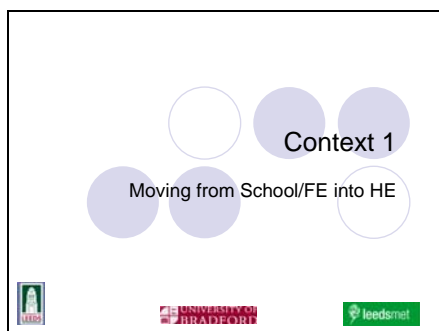



Evaluation Focus

The key areas that we explored in our exploratory evaluation of the ELP project were:

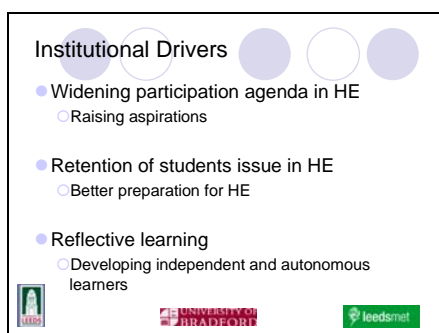
- 1) Learner **Experiences** - what is the experience of learners and practitioners of using an e-portfolio tool?
- 2) Learner **Enrichments** - what use has been made of the e-portfolio tools to enrich the teaching and learning experiences of the participants?
- 3) **Implementation** issues - how have the e-portfolios been implemented in the different contextual case studies?

Context 1



Moving from School/FE into HE

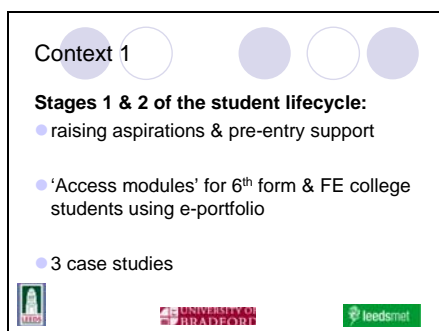
This first section reports our preliminary findings from Context 1: moving from school/FE into HE. It looks at the learner's experiences of using e-Portfolios in raising their aspirations to go into Higher Education and supporting them in developing their applications.



Institutional Drivers

There were three key drivers for this approach to the modules and use of the e-portfolio.

- 1) The UK Government's and University's commitment to widening participation in Higher Education. This leads to the question of ways of raising aspirations.
- 2) The need to make sure that students complete their tertiary education, part of which is about being better prepared upon entry to higher education.
- 3) The increasing importance of reflective learning, particularly in professional employment, for example in medicine.



This part of the report will focus on the first two transitions:

- raising aspirations in school children and
- better preparation for entry into Higher Education.

The project created three 'access' modules to get students to engage with the e-portfolio. The modules required students to carry out various tasks and record their achievements in their e-portfolios.

Three case studies using different modules

Case study	E-Portfolio platform	Dates	No. of partners	No. of students	Audience	Module content
1	PebblePad	Sept 05 (in progress)	3 school 6 th forms	65	Any subject	Generic
2	PebblePad	Sept 05 (in progress)	2 FE colleges	120	ICT	Generic
3	Bodington VLE	July 05 – Dec 05	4 FE colleges	49	Medicine and healthcare	Discipline specific Supported by e-mentors

Case Studies 1, 2 and 3

Each partner University created a module to meet their own needs, so three cases of use were evaluated. Cases 1 & 2 involved generic modules aimed at entry into any University course. Case 3 involved students who might be interested in studying either medicine or other healthcare related courses. Case 3 also involved using e-mentors who were currently undergraduates on the relevant course the students were interested in.

Evaluation Methodology

- Research population
 - 234 students in nine institutions
 - 10 tutors
 - 3 senior managers
 - 7 project team members
- Data collection methods
 - Online questionnaires
 - Interviews and focus groups
 - Assessment of student outputs

Participants

In total, 9 schools and colleges were involved with 234 of their students, 10 tutors and 3 senior managers. Data was collected from these populations via online questionnaires, student focus groups, staff interviews (both formal and informal) as well as an assessment of the work produced in the e-portfolio.

Findings: Use of e-portfolios

- Technology should not be a barrier to portfolio learning

How easy was eP to use?

Case 1 & 2 (n=79): 50% found it very easy or easy to use initially
11% found it hard or very hard.

Case 3 (n=7): all found it easy to use.

Findings: Use of e-Portfolios

Our preliminary findings suggest that for learning to take place, the technology involved in e-portfolios must not be a barrier to the user. Of those that used the e-portfolio designed to look like a separate software package (cases 1 & 2), 11% found it hard to use. Of those that used the more webpage looking e-portfolio (case 3), all found it easy to use.

This suggests that learning a new specific e-portfolio package is a little bit more difficult than using a system designed to look like a webpage. It also suggests that both systems did not present a significant barrier to the user.

Findings: Benefits of technology

- How might eP module be useful to you? (case 1&2)
 - 41% mentioned technology benefits over more general benefits of the module.
- What do you like about the eP? (case 1&2)
 - 31% mentioned electronic aspects not available in paper format.

Benefit	Count	Percentage
Applying to University / help in future	17	22%
Learning about self / recording achievements	14	19%
Communication with teacher	14	19%
Don't know	6	8%
Electronic / online nature	6	8%
Collating work	5	7%
None	5	7%
Sharing with others	2	3%
Saves time	2	3%
Learn new skills	1	1%
get work done	1	1%
work is private	1	1%

Findings: Benefits of technology


Although technology can be a barrier to some, it is the potential benefits that make the technology worth using. Without these additional benefits, a paper-based portfolio may be just as effective.

In an open question about the possible benefits of students participating in an access module using an e-portfolio, 41% of students who responded mentioned a technology benefit that the e-portfolio brings to the portfolio process. When asked an open question on what they liked about the e-portfolio, 31% mentioned aspects specific to the technology

which would be hard to replicate with paper based portfolios. Students seem to be aware of the e-benefits.

Findings: Reflective learning

- Reflection often important part of professional development, e.g. medicine, healthcare, teaching...
- In case 3
 - None of students had considered reflection an important skill for healthcare or medicine at the start.
 - At finish, all stated the importance of reflection and had some understanding of what it was.
- Case 1 & 2
 - Students are feeling more comfortable and better able to reflect as they have the opportunity to practice reflecting on experiences



Findings: Reflective Learning


The findings related to reflection suggest that the e-portfolio is a useful tool to encourage reflection when it is specifically mentioned to students. In all cases, reflection was an integral part of the e-portfolio modules.

Findings: Student decisions and applications to HE

“... plan for my future and helps me to think about what I want to do” Bradford student

“Starting the e-portfolio made me realise what was actually involved in medicine and I decided that it wasn't for me”. Leeds Student

- 2 e-portfolio student users got interviews and offers for midwifery this year. (case 3)
- Last year, no students got interviews or offers for this course from the same college.



Findings: Decision making and applying to HE

Did the e-portfolio helped students make decisions and apply to University?

One student, by taking part in the project, stopped himself making a bad career decision and opted not to apply for medicine. Two students who completed the e-portfolio got interviews for midwifery courses and have been given conditional offers. This is in comparison to 2004-05 at the same college, when no students got interviews or offers. Both the students themselves and their tutors acknowledge the important role that the e-portfolio played in helping them in their applications and at interview.


Findings: Application to HE

“I really liked the mentor support. They were really good at making useful comments and suggestions”

“The skills section really helped me build my personal statement”

“... helped me realise what skills I lacked and what skills I have gained from work experience etc. I could then add them to my personal statement quite easily”

- In case 3, mentoring and Personal Statement building were the most useful aspects of e-portfolio module.






Findings: Application to HE

In the one case (Case 3) where mentors were used, they were positively received by students and as a result more mentoring will be used in the future. Unsurprisingly, the practical benefit of working towards completing their personal statements for University application was highlighted by students as well.

Findings: Personal learning tools (1)

- E-portfolio included sections on
 - Useful websites, publications.
 - Skills – own skills comparison, discipline skills and transferable skills.
 - Choosing a course
 - Filling in a UCAS statement (case 3 only)
- Skills comparison and useful websites were the most useful areas according to students.








Findings: Personal Learning Tools

An e-portfolio system can provide a 'one stop shop' of useful sources of information to students. Encouraging students to carry out a skills audit was an important aspect for students. They could then compare their skills against those needed for their future career, identify their weak areas and plan for improvement. Having web links so that students could easily do their own research was also highlighted as important for students.

Findings: Personal learning tools (2)

- In case 3, more than half of students with increased knowledge of:
 - Careers in Medicine/Healthcare
 - The Skills You Will Need
 - Medical Ethics
- Half or less than half of students with increased knowledge in:
 - Applying to University
 - The Different Types of Courses Available








In case 3, more than half of students reported that their knowledge about careers in medicine and healthcare, the skills they needed and their knowledge of medical ethics was increased.

Less than half of those same students reported an increase in knowledge about applying to University and the courses available. The possible reason for this was articulated by one student who said that *"Applying to university is something that is drilled into us through tutorials and college talks."* Therefore students already have easy access to knowledge in these two areas without needing it from other sources.

Findings: Implementation

- Technical difficulties led to two colleges withdrawing
- IT policies and software vary widely between different schools and colleges.
- Access outside of the institution may be difficult.

Findings: Implementation

In two colleges, technical network difficulties, unrelated to the e-portfolio, resulted in their withdrawal from the project. This highlights two points:

- 1) staff commitment at those colleges was not high so the initial barrier served as an excuse,
- 2) implementing the best e-portfolio system in the world can be stopped by technical hitches which require close co-operation with IT departments in all partner institutions.

IT departments in schools and colleges can implement widely different policies and solutions. This means access to a web based e-portfolio may not be as easy for students as imagined.

Even though the e-portfolios can all be accessed via any web browser, software plug-ins like Flash may not be available to students outside of the school or college.

Context : Preliminary Summary

This section summaries our findings to date:

- One of the key experiences is the **usability** of the e-portfolio. The interface needs to work for the end user.
- **Communication tools and mentoring:** e-mentoring seems to be a useful way of supporting students and e-portfolios often have communication tools that allow mentors / tutors to view work and provide feedback.
- In terms, of **learning enrichments**, there are some suggestions that reflective learning is encouraged by e-portfolios but more work will be carried out in this area.
- **Better choices:** For some students it has clearly helped them make more informed decisions.
- **Better applications:** early indications are that the e-portfolio process has given students more confidence and the ability to 'sell' themselves better. Longer term research, after all students have completed the University application process, will give us a better idea of this.
- **Personal learning tools:** For learning to take place, students need access to relevant information. Identifying which information is most useful is crucial. Repeated or redundant information may put users off. Helping students to identify their strengths and weaknesses and being able to compare this to the skills required for a course or profession seems to have been a key learning outcome of the e-portfolio.
- **Implementation:** Technical difficulties can put users off and they won't always come back. Initial access to a web based portfolio may not be easy at school / college or at home.

Context 1: What next?

The project will complete its evaluation of all the key questions at the end of the complete implementation cycle in June 2006. A large number of students are still using the e-portfolio and have not applied to university yet.

- Initial data from students was positive in relation to the use of e-mentoring. As a result, e-mentoring will be extended to more students to see if the positive results can be replicated with a larger population.
- The discipline specific aspects of the e-portfolio modules were highlighted as useful by students. The project will seek to extend this to other disciplines in healthcare and other subject areas.

Context 2

Context 2
Moving from HE into Workplace settings
Pre-registration House Officers (PRHOs)
Nursing Students

Moving from HE into workplace settings

Context 2, Moving from HE into workplace settings involved graduate medical students undertaking the first year of their two-year professional foundation programme in a professional environment; and undergraduate and postgraduate healthcare students who are studying nursing who are completing their clinical placements.

Two case studies

Case study	E-Portfolio platform	Dates	No. of partners	No. of students	Audience	Location
4	Bodington VLE	Sept 05 (in progress)	1 Regional hospital	39	Medicine	Postgraduate professional training
5	Bodington VLE	Sept 05 (in progress) Oct 05	Placement	10 (60) + 29	Health (Nursing)	Clinical Placements

Case Studies 4 and 5

Context 2 was located at the University of Leeds Medical School and involved two different groups. These two cases comprise thirty-nine postgraduate medical students based at a regional hospital; and a group of 10 (out of a cohort of 60) volunteer nursing students (nurses) studying either an undergraduate or postgraduate nursing course on work placements. A further 29 students on an alternative pathway on the undergraduate nursing course joined the project in October 2005 but at the time of writing have not yet been on clinical placements and are not included in the evaluation results reported here.

The e-Portfolio Personal learning tools

- E-portfolio included sections on
 - Personal Development Planning
 - Mid Term Review
 - End of Placement Review
 - Reflective Learning
- PDP section the most useful section of the e-portfolio. It is also compulsory.

The e-Portfolio

The e-portfolio included a number of sections including personal development planning, mid-term review, end of placement review and reflective learning. The PDP section of the e-portfolio is compulsory.

Findings: Use of e-portfolios

- **Technology should not be a barrier to portfolio learning**

PRHOs (n=8): 14% found it easy to use initially
29% experienced some problems.
43% found it difficult or very difficult to use

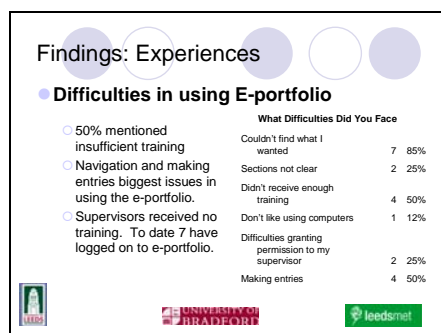
Findings: Use of e-Portfolios

As with context 1, for learning to take place, the technology involved in e-portfolios must not be a barrier to the user.

Like case 3 from context 1, these users were using the webpage looking e-portfolio, but unlike the FE students, only 14% found it easy to use, with 29% reporting some problems and just under a half reporting finding it difficult or very difficult to use.

This is a new professional programme that was introduced in 2005-06 across the UK,

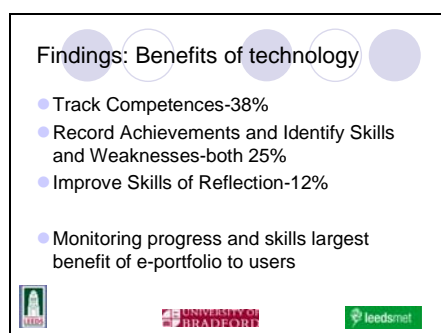
and the content and structure of the portfolio was prescribed. We were not allowed to alter or adapt the portfolio content to optimise online delivery.



Findings: User experiences

In an open question about the difficulties in using the e-portfolio, three issues emerged for the users:

- 1) Lack of training
- 2) Difficulties with navigation and finding what they wanted
- 3) And Lack of support from work place supervisors, who had not yet found the time to undergo training. (The supervisor are busy, full-time hospital clinicians and doctors.)

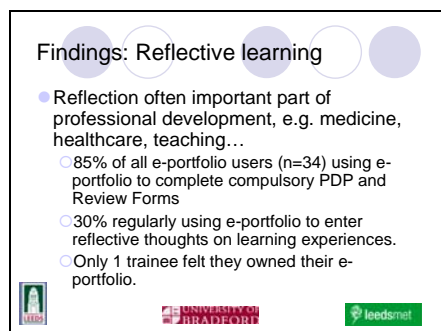


Findings: Benefits of Technology

In an open question about the benefits of using the e-portfolio, three areas were identified by the users as helpful:

- 1) Nearly 40% found the portfolio useful in tracking their competencies
- 2) A quarter found the ability to record their achievements and identifying their skills and weaknesses useful
- 3) And 10% found it helped them improve their skills of reflection.

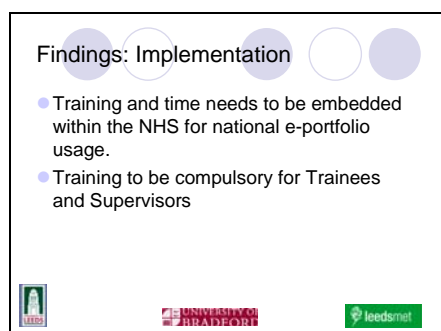
Overall, the ability to monitor progress and skills was perceived to be the most helpful aspect of using the e-portfolio.



Findings: Reflective learning

The findings related to reflection suggest that the e-portfolio is a useful tool to encourage reflection when it is a required and integral part of the e-portfolio. However around 1/3rd of participants regularly used the e-portfolio to reflect beyond that required by the assessment.

The question of ownership of the e-portfolio also emerged as an issue, with only one trainee believing that they owned their own portfolio. The rest thought it was owned by the hospital or the university.



Findings: Implementation

In the area of implementation three priorities have been identified:

- 1) Adequate training is currently perceived to be the most pressing need
- 2) The need to allow sufficient time for the trainees to develop their understanding and skills and
- 3) Make training compulsory for supervisors, who will be supporting the students throughout their professional practice.

Context 2: Preliminary Summary

This section summaries our findings to date in context 2:

- One of the key issues is the **usability of the e-portfolio**. The interface needs to work for the end user and insufficient training and difficulties with navigation were identified as two challenges the users faced.
- Reflective learning is a requirement of the professional training and is embedded in the e-portfolio activities. In terms, of **learning enrichments**, there are some suggestions that reflective learning is encouraged by e-portfolios but more work will be carried out in this area.
- For some participants it has clearly helped them **track their progress** in terms of the development of their competencies, possibly increasing their confidence by making their achievements explicit.
- Early indications are that the e-portfolio process has supported the participants in better **identifying gaps in their skills**, enabling them to address these. Longer term research, as the participants move into their second year and into professional practice will give us a better idea of this.
- **Implementation:** Initial access to a web based portfolio may not be easy in the workplace, eg in a hospital, or at home.

Context 2: What next?

- Further evaluation of all the key questions.
- Extend the use of the e-portfolio into the second year of the Foundation program
- Compulsory training for work based mentors and supervisors should lead to better support for learners.
- Wider discipline focus into other health related disciplines.

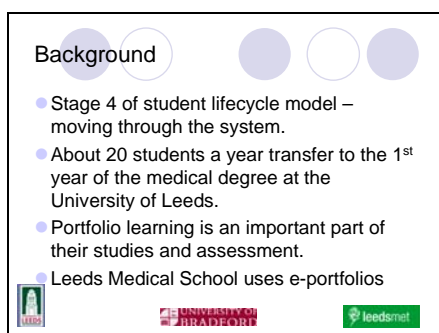
Context 3



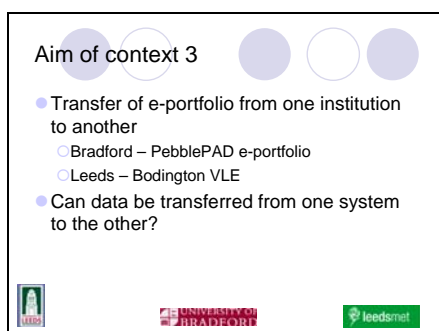
Transfer between institutions

Context 3 involved foundation year students on The University of Bradford's Clinical Sciences degree. Most students had aspirations to go on to do medical degrees and become doctors but had come from non-traditional backgrounds.

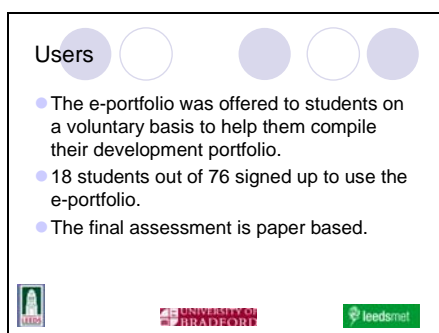
Context 3 looks at stage 4 in the student lifecycle model – moving through the system. Around 20 students each year on the clinical sciences course do well enough during the year to transfer to the University of Leeds medical school.



Portfolio learning is an important part of the assessment process in the area of personal and professional development on both the Clinical Sciences degree and the Medical degree. Part of the transfer process involves students bringing their development portfolio with them and building on it in their subsequent studies. Leeds Medical School is particularly keen on the benefits of electronic portfolios.



This context looks at the possibilities of transferring an electronic portfolio from one institution to another. Bradford students are currently using the PebblePAD e-portfolio and Leeds are using the log book facilities in their Bodington VLE. Can data be transferred from one system to the other?






Context 3 participants

The Bradford course includes a PDP module with is assessed by a paper-based portfolio. This module is well established and the tutor had some concerns about moving to an online portfolio, particularly marking 80 e-portfolios online. This meant that we could only offer the e-portfolio as a option to the students. 18 out of the 76 students signed up for the pilot, although, as we report, the fact that the assessed portfolio was paper-based somewhat limited the extent to which they found it useful.




Midpoint progress on interoperability

- Currently transferring data from one system to another is difficult and can not be done by the student.
- PebblePAD are developing a tool that allows the user the export their e-portfolio data.
- Further developments of standards are ongoing.




Other findings

- In getting students to use an e-portfolio, you learn a lot about the process and problems that occur.
- Three areas of interesting findings:
 - Technical issues
 - Staff experiences
 - Student experiences

Technical difficulties

- User authentication via LDAP
 - Initial problems in getting servers to communicate properly
 - New systems & software stop it working
 - Bugs which periodically stopped it working
 - Out of date information kept on LDAP server.
- Flash
- Different Browsers

Findings to date

Currently transferring data from one system to another is difficult and can not be done by the student.

PebblePAD are developing a tool that allows the user the export their e-portfolio data so students can take it with where ever they go.

In getting students to use an e-portfolio, you learn a lot about the process and problems that occur. These can be divided into three key areas:


- Technical issues,
- staff experiences,
- student experiences

In modern society we have become inundated with different usernames and passwords for all the systems we come into contact with. It was decided that it would be easier if students could log into their e-portfolio with the same username and password as for all their other University IT services. As the e-portfolio was hosted offsite, it was decided that PebblePAD would authenticate Bradford users via Bradford's LDAP (Lightweight Directory Access Protocol) server. This took longer than expected to set up due to servers not communicating properly. A new firewall stopped it working for a week. It occasionally broke down due to programming difficulties and the system would authenticate users who were not valid students at the University due to legacy information on the LDAP server. Initially, not all computers at the University had the correct version of the Flash plug-in to allow PebblePAD to work.

One user had problems with the e-portfolio working properly on his Safari web browser. This resulted in the student withdrawing from using the e-portfolio.

Staff experiences

- Bradford staff not so keen on e-portfolio
- Staff wanted an exact replica of paper based portfolio
- Lack of IT skills in tutors.
 - "I don't mind students using it but I'm not going anywhere near it (the e-portfolio)" Tutor
- Tutors did not support students in the use of the e-portfolio.




Staff experiences

Although Leeds medical school are running a number of pilots involving e-portfolios, staff at Bradford were less keen. They had developed a paper based portfolio of which they were very happy with. The e-portfolio had to replicate the paper based system.

Some staff were not keen IT users and lacked confidence and skills. The result was that tutors in the department at Bradford did not support the students in using the e-portfolio.

Student experiences

- Parity with other students
 - Would like to be able to submit electronically.
 - "...would have used it more if it was compulsory and everyone else was". Student
- Tutor support
 - "An IT literate tutor would really help. The tutor is the most important factor". Student



Student experiences

Because the e-portfolio was voluntary, students expressed the issue that they were reluctant to use it as the final version for assessment had to be paper based.

Lack of tutor support was a barrier to student use.

Context 3: Preliminary Summary

It is essential to have a close working relationship with IT department to smooth the way when the inevitable technical difficulties occur. For example, a new firewall was put in place which disrupted PebblePAD's ability to authenticate users via LDAP. This took a week to fix and all the students had to be issued temporary PebblePAD accounts to access their e-portfolio.

Tutor support is critical to success especially where work is formally assessed.

Context 3: What next?

- Further evaluation of all the key questions.
- Although this particular institutional undergraduate pilot was only partially successful, all partner institutions are piloting the e-Portfolio systems internally in a range of discipline areas and reporting growing interest from colleagues and senior manager.




Evaluation Summary

The project has submitted a bid for extension funds to continue the pilots until December 2006. All new cohorts in Contexts 1 and 2 are scheduled to continue until July 2007 and the partner institutions plan to embed these processes their institutional strategies for student access and support.

A full evaluation report will be produced in July 2006 to document the findings from the first complete implementation of the pilots, but institutional evaluation will be ongoing.

References

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And to end, here is the list of references used in the presentation. Thank you very much for taking the time to listen to or view this presentation.