

# Into HE: Learners' Experiences of e-Portfolios in Raising Aspirations and Pre-entry Support

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## ABSTRACT

This paper reports on the use of e-portfolios as a tool for widening participation and assisting in the UCAS application process. It also examines the use of e-portfolios in facilitating reflective learning, recording achievement and user engagement. Evaluation questions examined the students' perspectives of using e-portfolios and the impact that the use of the e-portfolio had on them. The initial results of the project exploratory evaluation suggests that even though the main purpose of an e-portfolio is to assist and help transition, an e-portfolio's success ultimately lies in how it is 'marketed' to its potential users and, equally importantly, their educational supporters. The initial training and its technical success along with the engagement of tutors are both important factors that influence the student use of the e-portfolio. However the results also suggest that those who did engage with the process found the use of the e-portfolio to be a pivotal tool in the success of their university applications and in the development of their decision making processes. Initial data also suggest that e-mentor support and a discipline focus may be important factors.

## Keywords

E-portfolios, widening participation, UCAS application, reflection, decision making, self-awareness, recording achievement.

## INTRODUCTION

For many years the British Government has pursued the notion of expanding Higher education provision. Its 2003 White Paper on 'The Future of Higher Education' (DfES, 2003) contains a strong commitment to widen participation in Higher Education (HE). At many universities there is emerging evidence that students from diverse backgrounds are coming into universities in school cohort groups and choosing institutions and courses on the basis of what their friends are doing (Layer, 2005) which can lead to difficulties later in their studies. The e-portfolio project aims to see if students can make better choices and widen their horizons by developing a sense of their own achievements and their potential. It is very much about personal development and giving them the opportunity to make informed choices about their future.

## e-Portfolios

"*If we build it will they use it?*" was the question posed by Dr Helen Barrett in a keynote speech at an e-learning conference (Cambridge Eifel Conference, 2005). We can build an e-portfolio designed to guide individuals through processes and information 'we' think they should experience but without the engagement of the users and their educational supporters will e-portfolios be viewed as just an additional technological burden?

There have been various pilot projects of e-portfolios in the UK over the past three years (Richardson & Ward, 2005). For example, the 'Specifying an E-portfolio' project (<http://www.nottingham.ac.uk/e-portfolio/>) discusses the use of e-portfolios to assist students in the transition to HE. Schwartz (2004) also recommended taking a holistic view of the student and looking at their potential to succeed in an HE learning environment. E-portfolios designed to guide and advise students through the application process, enabling them to present their achievements and to illustrate their potential for future study appear to be the perfect tool for this purpose.

The Enhancing Learner Progression Project (ELP) piloted from July 2005 aims to investigate the uses of e-portfolio at various stages of the Student Lifecycle Model. The initial results of the project evaluation will show that even though the main purpose of an e-portfolio is to assist and help transition, an e-portfolio's success ultimately lies in how it is 'marketed' to its potential users and, equally importantly, their educational supporters. The initial training and its technical success along with the engagement of tutors are both important factors that influence the student use of the e-portfolio. However the results will illustrate that those who did

engage found the use of the e-portfolio to be a pivotal tool in the success of their university applications and in the development of their decision making processes.

This paper reports the preliminary findings of an exploratory evaluation examining the introduction of e-portfolios from a student perspective.

## CONTEXT

This study forms part of the Enhancing Learner Progression project, funded by the JISC Distributed e-Learning Programme ([www.jisc.ac.uk/index.cfm?name=bradfordelp&src=alpha](http://www.jisc.ac.uk/index.cfm?name=bradfordelp&src=alpha)), which is exploring the application of e-portfolios at key transition stages in the Student Lifecycle (University of Bradford, 2004). This paper addresses the pedagogical impact of using e-portfolios to support students at stages one and two of the model: raising aspirations at all ages; and better preparation and pre-entry support by raising attainment to aid transition from school to HE.

The three partner institutions produced an 'access' module based around the use of e-portfolios, for use with 16 to 19 year old students in secondary schools and FE colleges, to assist in their preparation for application to university. The aim is to produce an integrated e-portfolio tool to enable students to, not only, consider the practicalities of applying to HE but to also develop their sense of self awareness, particularly in relation to career goals and decision making processes.

Each partner used a different e-portfolio system to support learners. One used Bodington VLE tools and the other two used the PebblePad e-portfolio (<http://www.pebblelearnin.g.co.uk/>). This paper reports on preliminary findings from three case studies of use that were implemented:

1. Sixth form school students in Bradford for progression into Higher Education (PebblePad).
2. Further Education (FE) college students in West Yorkshire for progression into Higher Education, adapting an existing paper-based portfolio to an e-portfolio (PebblePad).
3. FE college students in West Yorkshire who have aspirations to apply to highly competitive health related undergraduate courses (Bodington).

Each instance of use had different requirements of the e-portfolio but the issues that arose are broadly similar across both systems and all cases.

The support available to students at this stage of transition is largely dependent on the support available in the individual FE colleges and school 6<sup>th</sup> forms. Ensuring students make informed and realistic career choices is the responsibility of individual educational institutions and the Connexions Service (<http://www.connexions.gov.uk/>). This is traditionally delivered via a Careers Education Programme through the institutional tutorial system and supplemented by the offer of an individual careers guidance interview. Careers provision between FE institutions and schools 6<sup>th</sup> forms is not uniform and not all students make use of their entitlement. In the recently DfES (2005) commissioned report into careers education provision the following points were noted:

*'There is still a risk that not all young people who would benefit from advice are receiving it. This gap is due to Connexions operating with fewer resources than was originally anticipated, together with a lack of clarity regarding the respective role of schools and the Connexions Service in providing careers advice to young people.'* (End to End Review of Careers Education, DfES, 2005).

This gap in provision has resulted in an increase in the number of online projects being developed. The Nottingham Passport (<http://www.cityofnottinghampassport.com>) and Careers' Wales (<http://www.careerswales.com>) e-portfolios have both successfully attempted to fill this gap in guidance provision in their regions through the development of online Personal Development Planning (PDP) and recording achievement tools. These e-portfolios are not linked to any subject area and create the knowledge base for application to any course.

The three ELP e-portfolio cases are designed to enable users to prepare for the university experience, develop their self awareness and decision making skills, choose which universities and courses they would like to apply to, showcase their achievements and finally assemble a personal statement for their UCAS application.

### The e-portfolio modules

Each partner institution produced an 'access' module based around the use of e-portfolios – cases 1 to 3 below:

Case 1: The School to HE e-portfolio module (generic). This e-portfolio consists of exercises that are aimed at compiling evidence and reflection to produce better applications to University. It encourages students to audit their skills, action plan to improve their weaknesses and compile evidence of achievements and experiences which could be used to support their University application.

Case 2: The FE to HE e-portfolio module (generic). This module e-portfolio consists of four units which get students to research a range of issues related to going into higher education. These include finances, choosing a University and choosing a course. It also gets students to action plan, look at their skills and help prepare them for applying to University and beyond.

Case 3: FE applicants to HE e-portfolio module (health related). This e-portfolio guides students through a series of exercises examining their reasons for applying to university, the skills they will need to be successful in their chosen courses and enables students to look at medical ethics or careers in healthcare. The e-portfolio users interested in applying to medicine also had access to an undergraduate medical student mentor to provide feedback on their entries.

Case Study	E-Portfolio Platform	Launch	No of partners	No of students	Audience	Module
1	Pebble Pad	September 2005	3 School 6 <sup>th</sup> forms	65	Any subject	Generic
2	Pebble Pad	September 2005	2 FE Colleges	120	ICT	Generic
3	Bodington VLE	July 2005	4 FE Colleges	49	Medicine and Healthcare	Discipline specific Supported by e-mentors

Figure 1: Summary of access modules for Project Partner Institutions

## BACKGROUND LITERATURE

Portfolios have been in use for a long time and there is plenty of literature proclaiming the potential benefits of learners engaging in the learning portfolio process. This project takes as its starting point the possibility that the reported benefits of portfolios will aid students in applying to higher education.

The ability to reflect is one skill that we are looking to develop through using an e-portfolio. It is the recording and subsequent reflection on key aspects of our everyday situations that allow portfolios to become a powerful learning and development tool. Kolb's (1984) model of experiential learning includes reflection as one of the key elements required within the learning process. Mathers et al (1999, p29) found that "*building a portfolio can facilitate the completion of learning cycles*" and Harland (2005:336) writes that the "*portfolio allowed (teacher trainee) students to reflect critically*". Portfolios are also reported to help develop self-esteem, confidence and self-knowledge (Mathers et al, 1999 and Hartnell-Young & Morriss, 1999). The aim is to develop students' confidence in 'selling' themselves in their personal statements and in the application interview. Completing the e-portfolio process will help students gain a greater understanding of their strengths and weaknesses.

It has been mentioned in a number of studies "*that the role of trainer / supervisor is vital in portfolio-based learning*" (Pearson & Heywood, 2004, p87). Case 3 from project will look at the use of feedback from undergraduate mentors and the impact this played in the students' development.

E-portfolios are said to bring additional benefits including greater flexibility and the additional communication tools that allow them to "*be used to support ongoing interactions with mentors, colleagues and friends*" (Greenberg, 2004, p29). However, e-portfolios must be able to maintain all the benefits of paper-based portfolios. The technology must not overshadow or subsume the learning benefits of portfolios (Woodwood & Nanlohy, 2004). Not everyone is comfortable with digital technologies which could result in a barrier to creating a portfolio for users with less well developed ICT skills and confidence. For example, Woodwood & Nanlohy (2004, p235) noted that the students' "*perceived lack of technology skills impinged on the final*" portfolio and their engagement with it. They also expressed similar concerns in relation to the tutors' skills.

## EVALUATION METHODOLOGY

The project is an evaluation project which is using a case study approach (Yin, 2003). With six different case studies and two different e-portfolio systems the project has begun to undertake an exploratory evaluation with the aim of identifying the emerging issues across all cases and see if certain findings are specific to a particular instance or whether they seem to be more general issues in implementing e-portfolios. This paper reports on three of these studies.

Exploratory evaluations of all three cases are underway using online questionnaires and focus groups. The e-portfolio users in the different cases are at different stages of the application process. Participants in Case 3 have completed their e-portfolio module and are awaiting interview dates from universities whilst the participants in Cases 1 and 2 have yet to finish their e-portfolios.

The population included in the research include ten tutors from nine school sixth forms / FE colleges (Cases 1, 2 and 3); 85 out of 188 school sixth form / FE college students (Case 1, 2 and 3); three senior college / school managers (Case 1, 2 and 3); and seven project team members who are staff in the partners. It should be noted that all the school / college staff were self-selecting and were comfortable with IT.

The exploratory evaluation gathered data for the purposes of building a picture of the initial impressions of using the e-portfolio. Cases 1 and 2 have only carried out formative pre-use data collection focusing on the participants' perceptions, views and attitudes to the e-portfolios at an early stage of engagement. The evaluation of Case 3 e-portfolio has focussed upon the ease of use and implementation of the e-portfolio, and what role the e-portfolio played in putting together a successful university application, focussing on the usefulness of the e-portfolio content to the student.

A more sophisticated process will need to be employed for summative purposes. How do we measure if the use of the tool has improved reflective skills? How can we measure the impact when compared with non-users? Was it the *use* of the e-portfolio that led to success, in terms of university applications, (did the e-portfolios enable an increase in reflective skills, greater self awareness), or would that success have occurred regardless? We can attempt to look at these questions by the collection of comparative data from users and non-users but we will not only need to evaluate the end destination of these groups but also benchmark where both groups started from. We should also examine other influences on students. Does the Careers Education Programme within these institutions already provide relevant information and support to students? Would the e-portfolio users have received this information without engaging with the e-portfolio process? The distance travelled needs to be mapped and the role that the use of an e-portfolio played in that journey needs to be analyzed in more depth than an exploratory evaluation can allow.

Our aim is to inform the summative evaluation of the project which will focus on 4 key areas:

1. How easy is the portfolio to use and what can we learn from its implementation?
2. Has the use of the portfolio facilitated reflective learning?
3. Has the portfolio enabled students to make sound career choices and create suitable applications to HE?
4. Has the portfolio provided the student with easier access to personal learning tools?

The evaluation of the initial phase of the e-portfolio in Case 3 will determine the launch and shape of the second intake to Case 3, to be launched across a selection of West Yorkshire Secondary schools' 6<sup>th</sup> Forms and FE colleges in 2006. It will also inform the ongoing implementation of Cases 1 and 2 with respect to the usefulness of a discipline focus and e-mentor support.

## FINDINGS

### **e-Portfolios, how easy are they to use and what can we learn about implementation?**

Before we begin to analyse the responses from the users of the project we need to consider the feedback from those who decided that they did not want to use the e-portfolio tool. As Woodwood & Nanlohy (2004) state the technology should not act as a barrier to portfolio based learning. From an analysis of the results this seems to have been the case for a number of e-portfolio users.

### *Non-Users*

Cases 1 and 2 are unable to report on the views of non-users at this time since they are at the start of their cycle and participants are not due to complete for another six months and currently, using the e-Portfolio is compulsory for all participants.

As shown in Figure 1, Case 3 involved 49 participants from four FE institutions who were introduced to the Bodington e-portfolio through training sessions. All participants from two of the FE colleges withdrew completely at a very early stage in the project due to technical problems experienced during the training sessions. These are reported elsewhere (Murray et al, in press) but resulted, in the words of one of the careers advisers based at one of these colleges because the “*training wasn't successful*”, there were “*technical problems*” and the “*students lost interest*”. Reasons for not participating stated by the non-users also included the fact that they were not encouraged to use the e-portfolio from staff within the FE college, and students who were not considering apply to the partner university also saw no need to engage with the e-portfolio although this was not a pre-requisite for participation. Eight students, from the remaining two FE colleges completed the application process.

### *Users*

In cases 1 and 2, the initial survey found that 41% (35) of the participants had previously compiled a paper-based portfolio and that the vast majority (90%) of those who had used a portfolio had done so for assessment purposes. Five percent of respondents reported previous experience of using an e-portfolio.

None of the users in case 3 had used an e-portfolio before. Despite the wide launch of the governments Progress File initiative it would appear that the none of the students involved in the project had been users of ‘Moving On’(Year 10/11) or ‘Widening Horizons’ (Year 12/13) in their on-line or CD-ROM Formats (Progress File, DfES).

In cases 1 and 2, half (50%) of respondents found the e-portfolio easy or very easy to use and 11% (9) found it hard or very hard to use. This may be due to the fact that over 80% of respondents (n=75) reported themselves as good at using computers and using the internet to find out information. Fifty-eight percent (46) of respondents reported that their tutors had told them about the e-portfolio and why it is being used; 42% (33) of respondents reported that their tutor had not mentioned this or had only done so briefly. When asked an open question about the benefits of the e-portfolio, a fifth (21%) of respondents (N=74) mentioned some aspect of the communication tools as being of particular benefits; while 15% of respondents mentioned that the electronic nature of the portfolio was the best feature. This was broken down into those who liked not having to use paper, those who felt their work was safer and less likely to get lost electronically and those who liked the anytime, anywhere nature of an online e-portfolio.

In case 3 all of the e-portfolio users found the tool easy to use. Of the eight participants who completed the e-portfolio, seven responded to the online questionnaire (N=7) and of these 6 found the training to be adequate and all reported that their tutors had told them about the aims of the project and how it could help them. The main issues with using the e-portfolio came when attempting to find information. Only six of users reported that they could find the information they wanted easily. Two of the users experienced problems finding background information and useful links from the e-portfolio. The majority of users, six of the users also felt that they started to use the e-portfolio at the wrong time of year and five of users felt that Easter would be the most appropriate time to start the processes contained in the e-portfolio.

### **Has using the e-portfolio facilitated reflective learning?**

Reflective learning is now a large element in the training of many professions. As we have already discussed reflection within the learning process is extremely important, particularly within adult learning and professional development. The ability to review work and experience and turn this into learning has gathered prominence, particularly within the healthcare and medical fields.

In the case 3 e-portfolio (Bodington) there is no explicit reference to reflection. Yet when asked if the students knew what the term meant all were able to link reflection to a learning process as demonstrated by these sample responses from participants:

*“Looking back, addressing any issues, e.g. weakness and highlighting the positive and strengths. By reflection one should be able to appreciate what they are doing well and what needs improving and one should do this by looking back at an event or task and by setting targets for the future.”*

*“Reflection is to look back and think about past actions which you feel have an importance, you consider your actions, reactions and how you could have improved upon that situation.”*

*“Reflection in the terms of reflecting on the work that you carry out with being a doctor or in the healthcare service would mean analysing your performance and seeing how it could be improved for both the patient and the person who is carrying it out. Reflecting on the places and people you have seen to aid in situations in the present. (I assume this was meant to be mental reflection and not the reflection of light or the folding of a membrane)”*

All of the respondents mentioned that using the e-portfolio had enabled them to be able to look at their work in the one place and this had made them think about their previous entries and the comments made by the mentors. When they started the project none of the respondents had thought about reflection as being an important skill for the medicine and healthcare fields. They all stated that they now realise the importance of possessing reflective skills and, more importantly, have some idea of the process in relation to their own learning.

The case 1 and 2 e-portfolio does explicitly mention and support students in developing their reflective skills. However these students have not yet been asked about their reflective skills.

## **Has the e-Portfolio enabled students to make sound career choices and create suitable applications To HE?**

### *Relevant Career Choices*

The ability to make sound career choices rests upon a number of factors and there are a number of theories put forward to explain how success in this field can be achieved (Law 1996 in Watts 1996). The provision of up-to-date relevant information incorporating skills required and entrance requirements etc plus a high degree of self-awareness are vital components to many of these approaches.

In case 3, three students started the e-portfolio but have not completed due to a change in their original career plans. One of these students commented that *“starting the e-portfolio made me realise what was actually involved in medicine and I decided that it wasn't for me”*. A second respondent left their FE college to attend a 6<sup>th</sup> form in a secondary school in order to retake the first year of his/her AS levels but did not think that he/she would achieve the grades required to enter medicine. Even though these students pulled out of the project the experience of using the e-portfolio has positively impacted on their career choices.

Of the eight that completed the e-portfolio the seven that responded to the survey listed the section ‘What Skills Will I Need’ as the most useful section of the tool – see the table in Figure 2 below; five noted an increase in their awareness of these skills as an outcome of using the e-portfolio - see the table in Figure 3 below.

In cases 1 and 2, 'learning about self' was rated as the second highest (19%) potential benefit from these respondents.

### **Applications to University**

In all cases, working through the exercises within the e-portfolio is intended to enable the students to pull together their own skills and to enable them to produce a quality UCAS personal statement.

All the data reported here relates to case study 3, no data area available from cases 1 and 2.

In case 3, the e-portfolio enabled students to receive feedback on each of their entries from medical undergraduates acting as e-mentors, and a careers adviser (potential healthcare students). Four of the respondents found the ‘Personal Statement’ section portfolio e-useful and all of the respondents (7) found access to a mentor to be a useful aspect of using the e-portfolio. When asked what they found most useful about engaging with the project. The following responses were noted:

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

*“Mentor feedback on personal statement. All advice and comments were useful as they have written one before and been successful”*

*“Personal Statement” and “Personal statement and feedback”*

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

*“Transferable Skills was useful as it 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”*

The respondents valued the support they were given by the mentors and the help the e-portfolio provided in putting together their personal statements. They also stated that having access to mentor support increased their confidence and awareness of the issues and procedures during the application process. At the time of writing, all of the participants of the project have received interviews for at least two of their chosen universities; two have received offers, one for Midwifery (a 100% increase on the previous number of successful applicants to this field from the host college).

We will not fully be able to measure this impact of e-portfolio use until later on in the year when the application cycle is complete. One of the colleges, however, has noted a 200% increase in the number of interviews being offered to the students who have completed the e-portfolio in last year.

Participants in cases 1 and are at the start of the e-Portfolio process and have not yet completed. They also have a much longer time to complete their respective modules (18 months), so there is no data available on their applications to University. However, when asked how useful they thought using the e-portfolio would be in applying to University, 63% (50) of respondents thought it would be useful or very useful. Around a third (30%) were undecided with six percent replying that they thought it would be a little bit useful or not useful at all.

## **HAS THE E-PORTFOLIO PROVIDED THE STUDENT WITH EASIER ACCESS TO PERSONAL LEARNING TOOLS?**

One of the benefits of e-portfolio use is the ease in which information can be found and presented. We are interested in exploring whether the users of the e-portfolios are able to access learning tools that are relevant to them and whether we put the correct information into the e-portfolio.

In case 3, when asked which parts of the e-portfolio they found useful and not useful the responses presented in the table in Figure 2 were noted from case 3 respondents:

<b>Parts of e-portfolio (case 3, Bodington) N=7</b>	<b>Useful</b>	<b>Not Useful</b>
Useful Websites	5	1
Useful Publications	2	4
Considering Applying to University?	3	4
Do I Have the Skills	6	0
Transferable Skills and Employability	4	2
Choosing a Course and a Higher Education Institution	4	3
Discipline Skills	4	2
Filling in Your UCAS Statement	4	2

Figure 2: Most and Least Useful Aspects of the Bodington E-Portfolio Content

The ‘do I have the skills’ section, which encourages the students to match their own skills to the skills required to work successfully in medicine or healthcare, was identified by all respondents as the most useful section of the e-portfolio. Does this indicate some success in the e-portfolio’s ability to encourage a greater degree of self awareness? Did the students find these sections useful because they were not covered elsewhere in the careers/tutorial curriculum? More than half of the respondents found six of the eight e-portfolio’s content to be useful. The highest percentages occurring in the sections of the e-portfolio that related directly to the subjects they intended to apply to.

What did the students gain from using the e-portfolio? The evaluation looked for the increase, or otherwise of the students’ perceptions of their knowledge about certain issues. The results are tabled in Figure 3 below:

Do you know more or the same as before about the following	More	Same
Applying to University	3	4
Careers in Medicine/Healthcare	5	2
The Skills You Will Need	5	2
The Different Types of Courses Available	3	3
Medical Ethics	4	1

Figure 3: Students self-perception of knowledge change

The table shows that the use of the e-portfolio increased the users' knowledge in three of the five outcomes. Through an informal focus group session the students agreed that:

*"Applying to university is something that is drilled into us through tutorials and college talks"*. Four respondents to the questionnaire also felt that their knowledge had not increased as a result of using the e-portfolio.

Mirroring the trend of the table in Figure 1, knowledge increased when the sections were 'subject specific'. From the student's perspective specialist information was more useful than generic information about university applications and courses.

Having access to personal learning tools is an important aspect of e-portfolio development but these tools have to be relevant. They need to engage the user. Repeating materials will only discourage the user and could ultimately lead to disengagement from the e-portfolio process.

## CONCLUSION

The findings from Case 3, suggest that e-portfolios do have the potential to assist in the widening-participation and preparation for university application but they cannot work in isolation. This seems to be supported by the perceptions of the respondents in Cases 1 and 2 who have yet to complete their e-portfolios. Case 3 suggest that e-mentoring may have an important role in developing the e-portfolio. It suggests that the ability to communicate with a student mentor, who is studying in a university environment in the discipline area of interest to the learner supplies a 'real' link between the FE and HE experience; and that school/FE students need to see the 'added value' of engaging and using the e-portfolio therefore content has to be useful, relevant and subject specific. Participants in cases 1 and 2 are undertaking a generic module to develop e-portfolios which do not have this mentor or specific subject support, although over half of the respondents did have an idea of the discipline area they would like to study. The provision of e-mentors and a discipline focus are areas that will benefit from further evaluation.

In cases 1 and 2 the students have still to complete their e-portfolio modules, in some cases with a further six to 12 months to go. A further pilot group has been started which includes the provision of e-mentor support and further discipline access modules are in development to integrate the e-portfolio into their delivery and assessment.

In case 3, the first cohort has completed and recruitment for the next cycle has begun. The 2006 e-portfolio will be offered to 15 6<sup>th</sup> forms in secondary schools with launches from February 2006. Support will be increased to offer two training sessions per institution as well as on-going support and additional sessions on request. Lesson plans have been added to the e-portfolio to embed, if desired, the activities into the PSHE/Careers curriculum. In addition, the use of the e-portfolio will be 'personalised' to each institution e.g. timing and will be offered in three different formats:

The e-portfolio will be offered in 3 formats

- Student to use e-portfolio on own
- student to use e-portfolio through guided sessions/activities
- Students to choose own activities within e-portfolio and work through alone



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