

FROM APPLICATION TO GRADUATION AND BEYOND: EXPLORING USER ENGAGEMENT IN THE E-PORTFOLIO PROCESS

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Introduction

The UK government has, through a series of white papers, placed e-learning at the centre of developing education and learning. In the white paper, ‘Harnessing Technology’ (2005)¹ there is a call for education institutions to supply personal web space to learners to enable them to build electronic portfolios of their achievements to facilitate the process of lifelong learning. This development builds on the earlier statement that “*Progress Files help make the outcomes, or results, of learning ... more explicit, identify the achievements of learning, and support the concept that learning is a lifetime activity*” (Universities UK, 2003)².

The pedagogical benefits of portfolio and e-portfolio based learning have been well documented (Woodward 2000, Woodward and Nanlohy (2004))^{3 4}. The move from ‘surface’ to ‘deep’ learning (Gibbs 1992)⁵ and the ability to reflect upon learning (Kolb 1984, Schon 1983, 1987 and Boud *et al* 1985,1993)^{6 7 8} are all explored facets of learner-centred (e)-portfolio building and all essential components in the development of lifelong learning practice.

The aim of this paper is to explore the implementation of e-portfolios within different educational and institutional contexts (Further Education, Higher Education and work), student’s attitudes to e-portfolios; the benefits of using an e-tool for skills development; and the impact of the role of education supervisors/ mentors on the process of e-learning and the subsequent effects of this on learner engagement. If we are to promote lifelong learning and if we are to encourage users in the art of e-portfolio building and the process of reflective learning, their involvement in the process is paramount.

The Context

As part of the Enhancing Learner Progression (ELP) project⁹ The University of Leeds developed an e-portfolio to prepare students for their application to medical school and has also, in conjunction with the Yorkshire Deanery and a local hospital, designed and launched an on-line version of the Curriculum for the Foundation Years in Postgraduate Education and Training. Another project ‘Engaging Teachers in Students’ Personal Development Planning and Recording of Progress’ enabled the design and implementation of an e-PDP to be used within undergraduate geography and medicine courses. Personal Development Planning (PDP) by students meets resistance from students and faculty. The primary aim of this project was to facilitate participation of teachers into the process by working with them to incorporate relevant elements of their course materials, and thus enhance their abilities to encourage students to participate in recording achievements and setting goals. The different groups using progress file and e-portfolios are listed below:

Learners	Feedback required	Evaluation Stage	AIM	Number Involved in Evaluation
FE Students	Yes Medical Students	Formative	Preparation for HE	7/7
Medicine Undergraduates	Yes Tutors	Formative	PDP	
Geography Undergraduates	Yes Tutors	Formative	PDP	186/200

Nursing Undergraduates	Yes Tutors	Formative	PDP/Assessments from placement	4/10
PRHOs	Yes Educational Supervisors	Formative	Assessments/PDP	7/34

Three of the e-portfolios represent a journey of early medical training and skills development, from application to registration, and across 3 separate educational sectors. The e-portfolios also incorporate the 3 functions of portfolio usage and styles (Hartnell, Young & Morriss 1999, Greenberg 2004): Developmental, Assessment and Marketing.^{10 11}

At the moment there is no feedback from the medical students using the undergraduate progress file but when this data is analysed we will be able to trace the development of lifelong learning skills in this field across eight years of training. The progress file being used by this group is in same format as the geography students, the professional skills to be developed are different.

Theoretically each of the e-portfolios enable users to match and evidence their skills and competences within professional guidelines, reflect upon their learning and prepare them for applications to courses, postgraduate training and jobs. Ultimately creating a sound basis for lifelong learning and the educational and practical challenges that lay ahead.

Design and Implementation

When designing an e-learning tool we should not assume that all users possess the required level of IT skills. The technology should not overshadow the learning outcomes of e-portfolio use (Woodward and Nanlohy, 2004). We should also remember that the entire process is ‘about people...not technology.’ (Dublin, 2004, p294)¹². If this is not taken into account then we are in danger of losing the faith and attention of those we are trying to engage.

Ease of use

The use and design of the e-portfolio tool can also impact on the level of the usage. Two of the e-portfolios, FE and PRHO, were designed in isolation without input from user groups. All of users of the FE portfolio found the tool easy to use (n=7) but three out of this group had trouble finding the information they wanted. The majority of PRHOs (n=7) reported some problems with usage and, again, the majority of users (6) state that they have had trouble finding the section/information that they wanted. Only one respondent found the e-portfolio easy to use and only two of the responding group had used an e-portfolio before. The nursing portfolio which had been designed in conjunction with the department of Nursing offered different results. None of the users had trouble finding what they wanted. The largest number of problems resulted from the use of the e-portfolio itself, i.e. uploading files, making entries and granting permissions of access. One respondent stated that they had faced no difficulties at all. 87% (163) of the geography students agreed or strongly agreed that the Progress file was easy to use (n=186).

The supervisors and mentors have also faced difficulties in the use of the portfolio. Some of the supervisors of the PRHOs have yet to access the system and, after experiencing some frustration during the process, one commented that a ‘paper version’ may have been a better solution. The nursing supervisors have had problems accessing the work of their students, mirroring the difficulties faced by the students in granting this access. Where the educators have been involved in the design of the e-tool, nursing and geography e-portfolio, percentages of usage amongst the student body have been higher, all of the nurses who agreed to participate in the use of the Progress File have been using it, like wise, none of the nursing or geography students have had trouble finding information.

Technology

The results of the FE and PRHO case studies starkly revealed issues of technology. Of the four colleges who signed up to the initial pilot, by September only two remained. There were difficulties with caching in two of these institutions leading to other students/trainees being able to view others work. This has also been an issue with the PRHO sector. This had a large impact on the confidence placed in the system particularly when there is reflection and formal assessment involved throughout the project duration. There were no problems with this aspect of technology with the nursing e-portfolio which although primarily used within the university, is also used remotely within hospitals.

Students within the colleges were subsequently not encouraged to use the e-portfolio tool by tutors, careers professionals etc and no student usage was noted. Where the training and e-portfolio implementation had been successful students were able to make entries with confidence and staff within the two remaining institutions provided on going encouragement.

The geography e-portfolio was launched to all students through a lecture based session and all were aware of the tool.

Training on the use of the e-tools is an important aspect of a successful launch and five of the FE users and 3 of the PRHO users found the training aspect of the launch to have been adequate.

The trainee doctor group had received very little 'hands on' training on the use of the e-tool and their educational supervisors, none. This impacted on the initial phase of the project where only three out of the group (34) were using the portfolio regularly. A further training session resulted in more of the group accessing the area and at the moment, six months into the launch, eighteen out of a possible thirty-four are using the e-portfolio tool. Despite experiencing some problems navigating through the areas of the FE tool all of the seven respondents completed the e-learning exercise. Does this suggest that if the final outcome of the process is of benefit to users they will continue and work through issues rather than let them hinder their progress? Within the context of Lifelong Learning it appears that users are not against the concept of e-learning or e-portfolios but it is the practicalities of usage that hinder development. IT training needs to be thoroughly integrated in curricula at all stages of education and, for some, learning on the use of e-learning tools needs to be thoroughly scaffolded in the initial phases of use. Initial engagement by learners and their educational supporters appears to be a key issue in the success of e-learning.

Relevance

The relevance of the e-learning process is also key to the engagement process. The use of the e-tool needs to not only appeal to the learners but also to those supplying feedback or those supporting the learners in the process.

When developing the e-PDP progress file tutors were engaged in the process of designing the new e-Portfolio from the onset. Individual meetings were arranged with tutors to get their thoughts on how it should work and how their course materials could be included

The FE Students found the e-learning exercise to be relevant when they were taken through exercises relating directly to the courses they wanted to apply for. The users noted that the 'Skills' section was the most useful aspect of using the e-portfolio. Relating their own skills to the skills needed to be successful in their chosen careers. The nursing students feel that the sections relating to the assessment of their own competence to be of the greatest use. The majority (2) citing the 'Reflection and Skills' section as the most useful. The PRHOs rated the PDP section of the e-portfolio to be the most useful.

The majority of geography students initially found the tool to be useful and 55% (104) felt that it was a useful tool to help them think about the skills they needed to continue to work on. Only 16% (31) found it of no use at all. The students are making the link between skills development and job application with many of the respondents stating,

'The career development section was helpful in creating a CV for job application'

'I can see that in the future when compiling a more up to date CV or job application it would be useful as a record of what I have done. Especially the key skills section.'

Even though the users of the e-portfolio all have different goals: The FE students, a place at university on their desired course; the nurses, medical and geography students, passing their degree and gaining employment; and the PRHOs-registration. All of the users of the portfolio are finding the sections that require some form of self assessment to be the most useful and relevant.

Feedback

The advantages of the assessment and feedback properties of the process have been widely noted (Hartnell-Young & Morriss, 1999). The feedback process validates the learning of the user but without regular and constructive feedback the use of the e-portfolio declines.

The users of the college e-portfolios listed mentor feedback as one of the most important aspects of using the e-portfolio. When asked directly what was the most useful aspect of using the e-portfolio the following results were noted,

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

"Personal statement and feedback"

The students valued the support they were given by the mentors and the help the e-portfolio provided in putting together their personal statements. The students also stated that having access to mentor support increased their confidence and awareness of the issues and procedures during the application process.

So far only one of the geography tutors is aware of their students using the Progress File (n=6) and no feedback has taken place. The nurse users are receiving regular feedback on their clinical reports which are uploaded to the portfolio and the PRHO users are receiving feedback at summative points suggesting that they receive feedback on a more informal and regular basis. They work with their educational supervisors, therefore using the e-tool remotely is not common place.

Where occurrences of feedback are high learner usage increases and is more regular but this also relates to the context in which the e-tool is deployed.

Reflective Learning

It has been put forward that the learning process of adults utilises internalised reflection. (J.Piaget in Kolb 1984). This is an important aspect in lifelong learning and equally important in the writing of CV's and application forms. Super's (1979)¹³ developmental career theory expounds the view that adult career development occurs through life and is an on-going process. By experiencing jobs and careers and being able to reflect and evaluate our performance and satisfaction in each of these situations, as adults, we are able to crystallise and stabilise our career paths.

Reflection is also vitality important within the health and medical fields and its role in medical training is explored further in 'Tomorrows Doctors' (2003)¹⁴.

People, however, need to learn how to approach and make the best out of the 'reflection' process. Does the use of e-portfolios enable users to reflect and move through the learning and career development cycles mentioned above?

A large number of the PRHOs who responded, 6, have been using the 'Reflective Practice' section of the e-portfolio and all of the PRHOs have accessed the PDP section but only 1 PRHO claims that the use of the e-portfolio has helped them to improve their skills of reflection. Conversely the nurses are using and finding useful the reflection section in equal amounts (2). Amongst the geography students 24% (45) thought it would be no use at all in helping them to think about their strengths but all of the students thought it would be of some use in helping them to think about their achievements to date.

It would appear from the formative results that the nurses and geography students, both undergraduate groups, are finding the e-portfolio useful as a tool for reflection. The PRHOs are within a work-based environment and this may have led to the differences in the results. These differences in opinion need to be analysed in greater depth for the summative evaluation.

Reflection within the college portfolio is not explicit but the work contained within the e-portfolio culminated with a personal statement for entrance to university. This involves looking back on the exercises already completed. Has the use of the e-portfolio enabled these students to start thinking about the process in order to prepare them for the future?

When asked what they understood about the word 'reflection' the following points were noted,

"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."

An understanding of the process of reflection provides a good basis for the learning and work challenges that lay ahead.

Ownership

When questioned about the ownership of their respective portfolios, none of the PRHO e-portfolio users felt that they 'owned' their portfolios.

Has this hindered the type of entry the users place in their portfolios? Users do have the option of keeping reflective entries private but to be able to fully use the e-portfolio as a reflective tool supervisors do need to be allowed some access to the entries. This enables them to discuss thoughts and so facilitate learning. One clinical supervisor recently stated that there should be no private sections for reflection as he would like to know exactly what his trainee was thinking. 'This is the only way they can learn!'

When the FE users were asked the same question four stated that they felt that the university owned the portfolio with only two students feeling a sense of ownership over its contents. This portfolio and learning process was informally assessed with advice provision the desired outcome. There was no grading or professional competence to measure. The student nurses who are within a developmental skills-learning arena felt that they owned the contents of their e-portfolio. Does this result again reflect the context in which the e-tool is deployed? Learners within an education setting, completing an e-portfolio targeted to their specific learning goals.

Snadden and Thomas (2003)¹⁵ noticed the same effect in their survey of paper-based portfolios. Trainees were less likely to reveal any reflective thoughts within a tool designed for assessment purposes. We need to examine ways to overcome this issue if we wish to encourage a sense of ownership over learning. Is it the mere physical differences between paper and technology that act as a barrier to ownership or are there other factors present?

CONCLUSION

There are clear trends emerging within this formative evaluation. Students are noticing the reflective qualities of using e-portfolios within a learning environment, however, this view changes when graduates enter the work place. This attitude needs to be explored in more depth.

The key factor in getting students to engage with PDP and e-portfolios is the engagement of the tutors and educational supporters. It has been shown that where tutors are behind the process, students are far more likely to take it seriously: '*learner feedback regarding engagement with PDP processes has repeatedly indicated that learners value dialogue with tutors, and are more likely to engage in PDP processes if embedded alongside tutor support*'¹⁶. In order to engage tutors, they must be involved with the process from day one. Their voices must be heard in every aspect from design through to implementation. If they have some level of ownership they are far more likely to champion the cause than if they are simply asked to as a matter of departmental policy. They are closer to the students/PRHOs and so have a better idea of what will work and what is needed. They know from their own past experience, certainly with respect to their own modules and experiences, which areas students struggle with most, or which areas students need to develop most. For a portfolio to work it needs to be relevant, both to students and tutors.

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