

Using The E-portfolio: The Trainees' Perspective.

Case Study 4: Work-place Assessments

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

Institutional Context

The [Foundation Years Portfolio](http://www.mmc.nhs.uk/pages/foundation) for Pre-registration House Officers (PRHOs) is an NHS initiative (<http://www.mmc.nhs.uk/pages/foundation>) introduced to standardise initial medical training across England and Wales. It is a compulsory two-year postgraduate training programme for medical graduates who wish to become registered medical practitioners in the UK. Full registration to practice is based on a portfolio of assessed skills development and competence.

The West Yorkshire NHS Deanery wished to pilot the use of an electronic version of the portfolio to measure its impact on training. The e-Portfolio is being piloted in a single hospital in West Yorkshire.

Hospital A is part of a large inner-city medical teaching unit. Graduate medical students are employed in Pre-registration House Officer roles (PRHO or trainees). The hospital employs about 30-35 graduates each year and in 2005 employed 34 graduates to PRHO posts. A further five PRHO's transferred to the hospital after the project had commenced.

Administrative staff monitor and collate PRHO progression data and had to be familiarised with both the introduction of a completely new training curriculum and with the use of an online version.

At the launch of the [new foundation year's](#) training in August 2005 the hospital A was the only institution in England and Wales piloting an online version of the process.

The Challenge and Established Practice

PRHO's traditionally had to undergo one year of training after graduation before deciding which area of medicine they wished to specialise in. The curriculum for this training was organised on a local basis. From July 2005 this process was extended to two years and all PRHO's now have to undertake the national 'Foundation Years Training for PRHO's' (<http://www.mmc.nhs.uk/pages/foundation/about>). After the second year PRHO's begin to specialise and move around the local area.

Thirty-nine PRHOs and 34 Educational Supervisors needed to be trained on the use of the new foundation assessment portfolio and then introduced to the use of the electronic version of the portfolio.

Many supervisors believed that the local arrangements met the needs of new doctors and the new training structure and arrangements have not been universally welcomed. Resistance to the actual programme itself presented an additional challenge to the implementation of the e-portfolio. There was also no time within the existing training

structure to deliver training to the educational supervisors. It was believed that once the supervisors were using the e-portfolio tool, the use and navigation would be intuitive. The PRHOs themselves only received a limited amount of training on using the electronic portfolio but it was also believed that they would cascade their knowledge of using the e-portfolio to their supervisor.

The new Foundation Years Portfolio was released one week before the new intake of PRHO's began their new posts. The project officer who developed the e-portfolio tool therefore was working within a very tight schedule to transform the paper-based version into an e-environment.

Learner Activity

Learning takes places through work-based activities and is recorded on a series of assessment forms:

- Mini Clinical Evaluation Exercise (CEX),
- Direct Observation of Procedural Skills (DOPS),
- Case Based Discussion (CbD)
- Mini-Multi-source feedback (PAT).

These paper forms are completed by the appropriate assessors, scanned by the administrative team and then uploaded to the e-portfolio system.

Originally it was planned to have online versions of these assessment tools which would form part of the e-portfolio system. However as these forms required a signature from a clinical supervisor and many supervisors may not have had access to the internet on the ward, it was decided that these assessments should be filled in on paper.

PRHOs undertake a series of placements in different medical specialities. Twenty-five PRHOs are undergoing a cycle of one placement every six months and nine are undertaking one placement every four months. Each PRHO will have a different Education Supervisor for each placement period. Other compulsory training on communication skills, team work etc takes place on a monthly basis in a more traditional classroom setting.

The e-portfolio for the Foundation Years' training is used as a log of the PRHO's achievements. The assessment forms above are scanned in to the learner's portfolio and the PRHOs can reflect and comment on their learning and progress.

Before each placement they must create a Personal Development Plan (PDP) outlining their learning goals for that specific period. As they progress they can undertake a voluntary Mid-term Review but must complete an End of Placement Report which must be counter-signed by their supervisor.

PRHO's use the e-portfolio to record their work and have the option of recording reflective comments about their progress and experiences.

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 published 'Curriculum for the Foundation Years in Postgraduate Education and Training' handbook. An electronic copy of the portfolio can be downloaded from <http://www.mmc.nhs.uk/pages/foundation/foundation-learning-portfolio>.

Each PRHO is assigned an Educational Supervisor to whom they must grant access to parts of their e-portfolio.

The trainees can make private reflective entries in the e-portfolio or publish their comments for their assigned supervisor to read. They receive feedback through the e-portfolio on their progress for each separate placement.

Without the completion of a satisfactory portfolio the trainees cannot register as trained doctors.

Intended Outcomes

The process of compiling an e-portfolio aims to:

- Enable trainees to record and monitor their progress.
- Enable supervisors and training administrators to track individual PRHO's progress.
- Provide private space for trainees to reflect on their work and progress.
- Enable educational supervisors to provide feedback remotely.

The e-learning Advantage

Emerging Trainees' View

A mid-point evaluation took place in January using an online questionnaire. The 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.

Eight PRHO's returned data. No evaluation of the Educational Supervisors views has yet taken place but will be collected as part of summative evaluation.

A group of paper-based portfolio users, located at another hospital in the region, were also asked to complete an evaluation questionnaire to compare their skills with the e-portfolio users undertaking the same curriculum. Five paper-based users completed the evaluation.

A summative evaluation was sent to PRHO's and supervisors at the beginning of August 2006. To date only 1 PRHO has responded to the questionnaire.

An interview was also held with staff at the West Yorkshire Deanery to gain a stakeholders perspective of the e-portfolio project.

Training

Only two PRHOs reported previous experience of using an e-portfolio therefore the process was a new venture for the majority of PRHO respondents.

The trainees initially experienced problems in granting permission to their supervisors and five of those who responded to the initial survey expressed problems in navigating their way around the e-portfolio tool. Four of the trainees also stated that the training they received on the use of the e-portfolio was inadequate.

Usage

Peak use of the e-portfolio, as collated from the system log, correlates with the beginning and end of clinical placements. Personal Development Plans and Reviews have to be signed off and agreed between trainee and supervisor within these periods. Thirty-three (n=39) of all trainees have used the e-portfolios for the purpose of agreeing goals and summarizing learning. Nine (n=39) of the trainees are using the e-tool as an on-going resource to record reflective thoughts and comment on their learning experiences.

Two of the PRHOs state the PDP section to be the most useful part of the e-portfolio. At this point of e-portfolio usage none of the trainees thought the careers management section was a useful part of the e-portfolio.

When asked what skills the use of the e-portfolio had helped to develop the following answers were noted, as recorded in Table 1 below:

Section "Has the e-portfolio helped you to?"	Trainees
Organise Time	0
Reflect	1
Tracking Competences	2
Identify Skills and Weaknesses	2
Record Achievements	3

Table 1: Responses to question about 'helpfulness' of e-Portfolio

Enriching Learning

The e-Portfolio is seen by trainees as a useful device for recording achievements, tracking competences and identifying skills and weaknesses.

Trainees feel that the e-portfolio makes it easier to present work for assessment as *"Everything is in one place making it easier to piece together"*.

The e-portfolio and paper-based portfolio users were asked to rate their skills in a number of key areas:

- Ability to Organise
- Being Able to Assess Own Strengths and Weaknesses
- Being Able to Present Evidence for Assessment within Guidelines
- Planning of Work and Career
- Defining Goals
- Being Able to Reflect on Work and Situations

The users of the e-version of the portfolio felt they were better in all of the areas listed above, apart from 'Being Able to Assess Own Strengths and Weaknesses'.

This does not correlate with the data collected from the previous question where none of the e-portfolio users felt it helped them to organise their time better and only one respondent felt it had assisted them in developing reflective skills.

Ownership

Only one trainee felt that they owned the e-portfolio but when asked the same question, 4 of the paper-based users felt that *they* owned their portfolio.

Educational Supervisors Perspective

No training was arranged for Educational Supervisors and problems have been experienced in logging in and navigating the e-portfolio tool.

A comment received from educational supervisors reflected their frustration in accessing the system: *"Another 45 minutes wasted... Any solutions ... paper copy"*.

Out of 34 Educational Supervisors only nine have logged onto their accounts independently from their trainee. The majority of supervisors are logging comments in their trainee's e-portfolio whilst discussing progress with the trainee and logged in under their trainee's account. This raises some issues about the authentication and verification of the sign-off process. The electronic system is based on the supervisors and trainees having and using different accounts.

The use of the e-portfolio amongst educational supervisors has increased since September 2005 by 600% and the number of complaints received about the e-tool has decreased from a peak of four in September to zero in June. In July a supervisor contacted the Bodington help-desk complaining about the e-portfolio tool. They needed to sign off three of their trainees work but could not navigate around the system. They complained that the,

"System is not designed for busy clinicians"

Stakeholder Perspective

The West Yorkshire Deanery was interested in introducing an e-portfolio into the foundation year process as it felt an e-tool would streamline and modernise the training process. They were interested in discovering how e-portfolios could increase the reflective capabilities of PRHO's and were attracted by the move to a 'paper-lite' environment. They understood the challenges of introducing the e-portfolio tool but felt that the move to an electronic process fitted in with the national 'modernising' agenda. The Deanery also felt that the e-portfolio pilot had provided the opportunity to introduce the concept of an e-portfolio to staff and had instilled the notion that this method of assessment was here to stay.

The Future

Since the inception of the initial pilot at hospital A other e-portfolio projects had been developed around the country. Pilots in Scotland and The North-West had been introduced using on-line assessment forms and a software programme that is able to collate PRHO's average assessment scores and collate evaluations from PRHO's on training quality and input. These programmes were able to provide the ability to monitor performance for quality assurance purposes and could in the future allow assessments to be carried out remotely with the use of PDA's and other mobile devices. A meeting of the national e-portfolio group was held in London in March and all of the projects were asked to provide a demonstration and discuss issues and lessons learned from their pilots.

In July 2006 a decision was made by the National Portfolio group to nationally pilot the Scottish model of the e-portfolio. The West Yorkshire Deanery are involved in this national pilot and have extended the use of the e-portfolio to all teaching hospitals in the West Yorkshire area.

The PRHO's in hospital A have now completed the first year of the Portfolio using the electronic tool. Their entries have been collated and will be transferred to the new e-portfolio tool which was launched in August 2006.

Emerging Points for Effective Practice

- Training within a 3rd party organisation needs to be organised and facilitated from high levels of the management structure. Time and resources need to be planned and deployed effectively.
- Exploit opportunities within the training programme to promote and facilitate the use of the e-portfolio for reflective use.
- Lack of commitment from supervisors to use the e-portfolio as a feedback tool could have impacted on the trainees' views of ownership and use of the e-portfolio as merely a tool to collect compulsory forms and exercises required for registration.

Conclusion

The use of the e-portfolio has been effective in enabling trainees to monitor their progress against the assessment rubric but is not being utilised as a reflective tool by the majority of users.

Due to lack of training and time Educational Supervisors are experiencing problems in accessing and using the e-portfolio tool. This has impacted on the usefulness of the e-portfolio to trainees.

The Foundation Portfolio is a new initiative and has not previously been used in a paper format in Hospital A. It has been introduced as an e-version. The source material was developed for use in a paper-based environment and as a result approximately 80% of the portfolio consists of reading material with only 20% being used to upload learning assessments and comments. The e-tool needs to be redeveloped and the initial material adapted to fit an e-learning style and environment.

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