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## Spotlight on portfolio assessment

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There has been a wave of interest in the use of portfolios for assessment purposes in the health professions in many countries over the past decade. Why has this occurred and what does portfolio assessment provide that other forms of assessment do not? There were 12 presentations and two posters on the topic at the Edinburgh meeting but even from this small sample some trends and take home messages are evident.

### 1 What is a portfolio?

A portfolio has a wide range of meanings from a “drawer” into which documents and other material such as videos are placed, to a highly structured framework for holistic assessment of an individual. There was general agreement, however, regarding the central role of reflection in the portfolio process; the usefulness of portfolios for assessing progress over time; and the ability of the portfolio process to provide feedback.

*Take home message: The portfolio is a framework containing evidence of achievement of learning outcomes over time. This evidence is supplemented by the portfolio builders' reflections on their learning and can be used to provide feedback to the learner.*

### 2 Why are portfolios used?

Portfolios are used to support learning and for assessment purposes, both formative and summative. There is debate about whether one portfolio should be used for both learning and summative assessment and whether the summative assessment function interferes with the learning function. This debate surfaced at the meeting in several of the presentations. Will the portfolio builder be honest in identifying weaknesses and learning needs if the portfolio is used for summative assessment? Maastricht Medical School, however, found that in their experience assessment did not hamper the openness of students and Dundee Medical School presented student evaluation results that showed that students perceived that the portfolio assessment process heightened their understanding of the learning outcomes.

*Take home message: Portfolios are used to support learning and to assess individual achievement of learning outcomes. It seems likely that one portfolio can be used for both purposes but further research is needed to confirm this.*

### 3 What should go into an assessment portfolio?

Many participants at the meeting were keen to identify what went into the portfolios that were being presented at the various sessions. Writing down lists of portfolio contents is not likely to be helpful, however, as the portfolio content is unlikely to be transferable from one course to another. The portfolio contents need to be relevant to individual courses and to the educational opportunities provided by the course of study. In the undergraduate curriculum portfolio contents are likely to be selected course work that provides evidence of achievement of the learning outcomes.

*Take home message: There is no prescription for the contents of a portfolio. The assessment portfolio should contain course work and other personal material that provides evidence of achievement of the learning outcomes.*

### 4 Who is responsible for collecting the portfolio material?

The portfolio is the property of the portfolio builder. Some of that property is private and some is shared and made public. It is the public material that is submitted for assessment purposes. An educational institution such as a medical school, however, may have a responsibility for logging and collating data such as tutor ratings and examination results that will be included in the portfolio.

*Take home message: The portfolio builder owns the portfolio.*

### **5 What tools are available for collecting the portfolio material?**

The term portfolio literally means a collection of papers. Although portfolios have traditionally been paper-based, the inclusion of other material such as videos or CD ROMs of performance, for example consultations carried out by the individual, is increasingly commonplace. Paper-based portfolios can be bulky and cumbersome and this was a common finding in the AMEE presentations. There is increasing interest in storing the portfolio material electronically and although not a prominent theme at the AMEE conference, there is enthusiastic support for e-portfolios. This simplifies the storage of portfolio material but there is some doubt as to whether e-portfolios are easier to read, in particular where searching through material is necessary for assessment purposes.

*Take home message: Electronic storage of portfolio contents has much to offer, although paper-based portfolios may be easier to read for assessment purposes.*

### **6 How does portfolio assessment relate to educational strategies?**

Self-directed learning is acknowledged to be a pre-requisite for life-long learning, an essential component of keeping up to date and part of the professionalism of health care providers. "Integration, self-directedness, authenticity, professional and general competencies are key elements" wrote Cees van der Vleuten in his abstract for the plenary session on "Portfolio assessment: where are we going and why?" Although unable through illness to make the presentation personally, his talk was given by Lambert Schuwirth, who pointed out that if our aim is to produce self-directed learners then the onus should be on the learner to demonstrate achievement of their learning. Hence the appropriateness of portfolio assessment in courses that emphasise self directed learning.

*Take home message: Portfolio assessment is intimately linked to self-directed learning. In self directed learning the onus should be on the learner to demonstrate achievement of the appropriate standard in each of the learning outcomes. The portfolio provides a framework into which the learners can put self-selected material providing evidence of their achievements.*

### **7 How reliable are portfolios?**

The reliability of portfolios has been much debated in the literature. Although some of the short communications mentioned this debate, there was no conclusive evidence presented at the meeting regarding the reliability or otherwise of portfolio assessment. It was however a question that was asked by delegates during some of the sessions, indicating an area of concern.

*Take home message: Reliability issues need to be addressed in portfolio assessment.*

### **8 What role do mentors have in the portfolio process?**

A short communication from Groningen reported on the successful use of GP coaches or mentors for first year medical students engaged in portfolio learning. From the Cleveland Clinic, Ohio, there was a symposium presentation of a recently initiated five-year medical degree programme to train clinician investigators in which mentored portfolios were the major form of assessment. Maastricht Medical School emphasized the need to separate the role of mentor from that of assessor.

*Take home message: Mentoring is an important part of the portfolio assessment process.*

### **9 Are portfolios worth the time they take to compile and assess?**

Most people at the meeting involved in the use of portfolios acknowledged the amount of work involved for both students and staff. Reflection is an essential component of a portfolio. If the crucial importance of reflection for self-directed and life-long learning is

not emphasized and its importance as part of professionalism is not understood, the time taken to build the portfolio may be resented by the students and seen as taking them away from clinical work. Staff may resent portfolio assessment as unnecessary work.

*Take home message: Portfolio building and assessment take considerable time but it is time well spent if it supports reflective learning.*

### **10 What is the role of student induction in portfolio assessment?**

Different methods of introducing students or trainees to the portfolio process were described. A short communication from Sonderborg in Denmark emphasized the importance of user induction in their successful introduction of portfolios for all specialist training throughout Denmark. In contrast an evaluation of the introduction of portfolios for the first year students at Newcastle Medical School in the UK showed that students were ambivalent about the use of portfolios. One of the main conclusions of the student presenter was that one session to introduce students to portfolio learning was inadequate and led to motivation problems with portfolio building.

*Take home message: Adequate student induction is crucial for the successful introduction of portfolios*

### **11 How important is staff development in the portfolio process?**

Staff development is sometimes forgotten or cursory in the struggle to introduce new courses or curricula. One of the short communications reminded us of the importance of staff development for the successful introduction of portfolio learning. Dekker et al described the specific training programme for GP coaches for first year students undertaking learning with portfolios at Groningen. The coach acted as a role model, helped to stimulate reflection, facilitated contact with patients and had a role to play in assessing the portfolios. GP coaches felt that the staff training programme prepared them sufficiently well for their coaching role and 95% were positive about the coaching experience. They enjoyed working and learning with the students.

*Take home message: Staff development is crucial for the successful introduction of portfolios.*

### **12 How is the potential for plagiarism tackled in portfolio assessment?**

Although few of the speakers addressed the issue of identification of plagiarism in portfolios it was an issue that came up in questions after several of the short communications. Those with experience in the use of portfolios seemed satisfied that they had checks and balances in place to identify plagiarized material that found its way into portfolios. While some presenters mentioned that software programs were available to identify material copied from the internet, there were no reports of their use. Most groups using portfolio assessment used tutors or markers to identify material that had not been produced by the individual portfolio builder. The presentation from Leuven attributed the use of grading the portfolio for assessment purposes with the inclusion of falsified material. When grades were not used the pressures that led to falsification of material did not seem to exist. There needs, however, to be exploration of what actions should be taken to deal with portfolio builders who fake or plagiarise portfolio material. There are important questions to be addressed regarding the professionalism of individuals prepared to cheat, and their fitness to practise.

*Take home message: If coaching/mentoring is robust, plagiarism is identified. What is less clear, however, is how to deal with cheats.*