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Twelve tips on how to compile a medical educator's portfolio

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ABSTRACT

Medical education is an expanding area of specialist interest for medical professionals. Whilst most doctors will be familiar with the compilation of *clinical* portfolios for scrutiny of their clinical practice and provision of public accountability, *teaching* portfolios used specifically to gather and demonstrate medical education activity remain uncommon in many non-academic settings. For aspiring and early career medical educators in particular, their value should not be underestimated. Such a *medical educator's portfolio* (MEP) is a unique compendium of evidence that is invaluable for appraisal, revalidation, and promotion. It can stimulate and provide direction for professional development, and is a rich source for personal reflection and learning. We recommend that all new and aspiring medical educators prepare an MEP, and suggest twelve tips on how to skillfully compile one.

Introduction

Teaching has long formed an integral, albeit implicit part of doctors' day-to-day workloads. Now, explicit evidence thereof is increasingly becoming a formal responsibility for doctors internationally (Frank et al. 2015; GMC 2015). In academic institutions, medical educators' portfolios (MEPs) are often a requirement (Kuhn 2004). In many non-academic settings, however, they remain uncommon, only slowly being introduced to doctors specifically interested in medical education (e.g. as part of post-graduate degrees in medical education).

MEPs are a significant means of demonstrating and assessing clinician-educators' performance (Seldin 1997; Beasley et al. 1997). Unlike a curriculum vitae (CV), they can capture performance evidence in much greater detail, documenting anything from an educator's productivity, teaching methods, practice examples, goal development, academic excellence, teaching philosophy, learner-generated markers of performance (e.g. feedback or successful student outcomes), institution-specific information, professional development in education, scholarly activity, publications, reflective notes, and more. As such, MEPs are subjective, dynamic and usually non-standard collections of evidence (although some institutions make content stipulations, which should be heeded). Contrastingly, *clinical* portfolios are often mandatory, with pre-defined structure/content specifications, aiming to satisfy public scrutiny and statutory accountability. Canadian *clinical* speciality training portfolios, for instance, are structured according to the *CanMEDS Physician Competency Framework* (Frank et al. 2015), whereas in the UK, categories for *clinical* portfolios for appraisal/revalidation are stipulated by the GMC (2012a). Often, such pre-determined *clinical* portfolio structures cannot capture the diverse *educational* activities clinician-educators undertake, or accurately reflect their teaching performance. An MEP can overcome this

deficiency, making educational evidence available when required for appraisal, revalidation, promotion, and tenure. MEPs also provide a powerful (if not mandatory) adjunct to anyone applying for specific roles within educational settings, and facilitate career development in medical education (e.g. by stimulating reflection, promoting goal setting and helping identify projects, activities, positions, or teaching responsibilities to undertake). For clinician-educators working in academic settings, MEPs may already be commonplace, but for many clinicians around the world with a burgeoning interest in medical education, MEPs remain unfamiliar territory. The latter are the focus of our attention in this paper. We suggest twelve tips on how to get started compiling an MEP.

Tip 1

Recognise the value of an MEP

An MEP is much more than an extended version of the educational activity section on your CV. It can be used to collect wide-ranging examples of teaching activities, from lectures given, assessments performed, feedback received, to courses taken, meetings attended, curricula organized, and articles published. More importantly, portfolios are dynamic: content is added, reviewed, reflected on, reconsidered, changed, reused, removed, and refined (Baume 2003). Thus, MEPs powerfully demonstrate an educator's development, highlighting particular capabilities, and areas of interest. By supporting a "continuous cycle of reflection, planning, and action" (Williamson 2011, p. 3), they stimulate self-evaluation and setting of educational goals, thus facilitating skillful self-directed learning. The latter is a "key link between undergraduate education, postgraduate training, and continuing professional development [requiring] learning opportunities that promote self-confidence,

question asking and reflection, openness and risk taking, uncertainty and surprise" (Towle and Cottrell 1996, p. 359). MEPs provide a safe platform for this and, in themselves, can thus become catalysts for improved teaching and training (Lamki and Marchand 2006). If constructed well, they provide unique opportunities to stand out from the crowd in future job applications, promotions, and reviews.

Tip 2

Decide what to use your MEP for

Portfolios may be compiled for storage of evidence, professional development, presentation, assessment, or courses (Baume 2003). When compiling an MEP, consider the following uses:

- a. *Storage of information for future reference of materials:* This type of MEP essentially constitutes an archive of your educational activities. If clearly laid out it provides easy access to educational data when, for example, planning training sessions, writing a CV, or developing an educational philosophy, and will form a safe location to store anything relating to your educational activities. Such a portfolio is an excellent starting point for early-career medical educators: every time you undertake an educational activity, slot the evidence into your MEP. It will grow quickly. Once sufficient evidence has been collected it can be used for learning and development purposes. For this, it will be essential to decide which categories the MEP should contain (tip 6), what and how much to collect, how to include reflection (tip 8), how often to review the MEP, and how to go about planning new educational goals (tip 10). It will be a private work-in-progress and become a learning tool catalyzing your development as educator (Baume 2003).
- b. *Structured portfolio for presentations/interviews:* At the other end of the spectrum lies the formal and highly structured MEP used for presentation at interview or appraisal. Such MEPs showcase educational strengths and achievements, focusing on characteristics and challenges of the educator within the workplace, and your ability to meet requirements in certain educational domains. How to structure such an MEP will partly be determined by the purpose it is required for and any stipulated guidelines, but should ultimately still be decided on by you. This avoids needing to search for evidence outside your practice experience, a risk inherent in rigidly pre-dictated portfolio structures (Van Tartwijk and Driessen 2009). Instead, the practitioner-centred format that makes MEPs individual will be maintained, enabling demonstration of authentic evidence of activities and achievements.
- c. *Personalised historical documentation of career:* The more varied and long-term an educational career becomes, the more individually structured the MEP will need to be to capture the many different educational activities performed.

Whether starting off or mid-way through your medical education career, before compiling an MEP, consider how

you wish to use it. This will determine what to include and how to collate it.

Tip 3

Keep your MEP and clinical portfolio separate

Many *clinical* portfolios, including those required of residents and specialty trainees, now contain options to log teaching experience. Unfortunately, however, these sections are usually too simplistic and standardized to capture the breadth and detail of educational activities a medical educator performs (e.g. ISCP 2017). We therefore recommend that, if medical education is your area of special interest, you collate evidence relating to your teaching activities in an MEP kept separate to your clinical portfolio. The MEP will then be ready for instances when your educational development and not only your clinical performance is being scrutinized.

Compiling two separate portfolios will be more demanding and sometimes require duplication of information. Ultimately, however, an MEP will allow greater flexibility throughout your career: it will better enable you to collate specific and detailed educational evidence, and to demonstrate your development as an educator. This is increasingly required of medical practitioners internationally. While it appears that, in some countries, the rate of specific appraisal of educational roles for clinical faculty has been low (e.g. Ahearn et al. 2013), this is changing due to the continually rising formal implementation of guidelines regarding evaluation and recognition of the teaching performance of doctors throughout the world (e.g. GMC 2012b; AMC 2015; Frank et al. 2015).

Tip 4

Start MEP compilation early

The skillful construction of a useful portfolio consumes time and energy (Williamson 2011). While MEPs can be compiled quickly, perhaps in preparation for an interview, you are likely to overlook the less explicit educational activities you have undertaken, and to miss out on the learning and development opportunities inherent in MEP construction. Consequently, we recommend starting your MEP as soon as you decide to develop an educational career. Collect evidence after completion of each educational project, so that details (e.g. titles, dates, and number/levels of learners) are fresh in your mind. Over time, this will enable review of and reflection on your educational activities, and allow evaluation of performance and analysis of mastered skills, thus facilitating identification of competencies needing development (Driessen et al. 2010). As such, MEPs become active learning tools: assembling one will stimulate reflection on its contents, ultimately improving teaching (Lamki and Marchand 2006). Additionally, collating an MEP early enables timely and more focused goal planning (tip 10), and facilitates development of an educational philosophy (tip 7). Both should inform decisions regarding which future teaching activities to undertake. Lastly, starting an MEP towards the beginning of your teaching career will demonstrate that your educational aspirations began early and were consistent.

Tip 5

Collect widely

Portfolios are particularly effective at documenting experience and enabling assessment of learning in the workplace: they lend themselves to compilation of non-standard information about performance, and can capture characteristics of the medical educator as *learner* and *their* learning environments (Snadden 1999). When starting an MEP, therefore, collect as widely as possible: gather information from educational sessions with different cohort sizes (from one-to-one to auditorium-sized contexts), different learner groups (students, trainees, or allied health professionals), different learning environments (ward-rounds, clinics, operating theaters, university settings, or meetings), different teaching styles (learner-centred, activity-based, or didactic), different types of training attended (from local educational seminars to formal medical education courses and conferences), and other related activities such as mentoring activity, publications, conference presentations or educational qualifications. There is not always time to organize an MEP immediately, but the more evidence gathered *in situ*, the quicker and easier it becomes to structure your MEP later (tip 6). Also, record brief reflective notes as you collect your evidence (tip 8) – you can scrutinize and polish everything subsequently.

Tip 6

Structure your portfolio

Structuring your MEP will increase its user-friendliness for yourself and reviewers. If you work for an institution that provides guidelines or seminars on compiling a teaching portfolio, do heed the advice and stipulations given. Those starting without institutional guidance should consider a portfolio structure that covers all relevant educational activity domains. Ideally, portfolios used to promote and monitor development should contain overviews of what has been mastered and what remains to be achieved (tip 10); those used for appraisals/interviews should contain only the most important materials, to avoid information-flooding and consequent confusion of reviewers. **Box 1** contains examples of headings you might use to structure your MEP, but further examples exist (e.g. Lamki and Marchand 2006), highlighting the rich diversity in portfolio designs. Indeed, MEPs are rarely uniform or easily comparable, which explains their poor reliability when used for assessments (Pitts et al. 1999). Why not use this to your advantage? Individualise your MEP to showcase your unique abilities, strengths, teaching philosophy, and aims as medical educator – it is your best advertisement for future employers and colleagues.

Box 1

Structuring your MEP: two examples with suggested evidence to include.

Core Values of Medical Educators (AoME 2014)

1. Teaching and facilitating learning
e.g. Lectures delivered, reflections on small group teaching
2. Assessment of learning
e.g. Duties as an examiner, workplace-based assessments completed for junior colleagues
3. Educational research and scholarship
e.g. Educational publications, contributions to educational conferences

4. Educational management and leadership
e.g. Formal appointments, work as an educational supervisor
5. Designing and planning learning

e.g. development of training programs, design of study days
Content Categories for an Educator's Portfolio (Kuhn 2004, p. 309)

1. Philosophy of Education
e.g. A personalized statement on your approach to teaching (tip 7)
2. Teaching and Scholarly Activities
e.g. Educational research activity
3. Recognition of Excellence
e.g. Awards for teaching and training, positive feedback from students
4. Courses and Study to Increase Expertise as an Educator
e.g. Post-graduate courses or degrees in medical education
5. Publications
e.g. Posters, published articles

Tip 7

Develop and include a personal educational philosophy

An educational philosophy is “a systematic and critical rationale that focuses on the important components defining effective teaching and learning in a particular discipline and/or institutional context” (Schönwetter et al. 2002, p. 84). It typically constitutes a reflective statement in which an individual analyses his/her teaching methods, justifies these and considers how to improve them in future (Kearns and Sullivan 2010). The driver behind an educational philosophy is the notion that passionate educators understand how learning takes place, how to facilitate this process, and what learner aims to set (Chism 1997–98). Inevitably, an educational philosophy is a dynamic statement that requires regular review, and changes as experience and knowledge accumulate.

Educational philosophy statements should be based on your *own* experience of teaching, and should consider how this accords with current academic thinking in medical education. Formulating your educational philosophy may seem daunting (Medina and Draugalis 2013), and may be an unusual exercise for those with a positivist background. Do not let this deter you or be afraid to write in the first person or refer to “my students” or “when I teach”. When compiling an MEP for the first time, write your philosophy statement last (Richlin 1995). This will allow review of and reflection on all your teaching activities, highlighting what your educational foci have been. Consider listing teaching courses attended, educational books or articles read, and advice/mentorship sought – these can then feed discussion of how information on education and your experience have influenced formulation of your philosophy. **Box 2** lists some useful questions to stimulate your thinking and you may like to consider Kearns and Sullivan's (2010) recommendations when writing a first draft. Alternatively, ask to see your mentor's educational philosophy statement and encourage him/her to review your first draft.

Box 2

Formulating a teaching philosophy: key questions (Schönwetter et al. 2002, p. 88)

- What is the role of my teaching philosophy?
- What is my motivation in teaching?
- Under what opportunities and constraints do I learn and do others learn?
- What outcomes do I expect of my teaching?
- What student-teacher relationship do I strive for?
- How do I measure successful teaching?

What habits, attitudes, methods mark my successful teaching achievements?
 What values do I wish to impart to students?
 What code of ethics guides me?
 What themes pervade my teaching?
 Under what practical opportunities and constraints do I carry out my role?

Many applications for educational positions, grants, awards, or promotions will require an educational philosophy statement. Formulating one will be good preparation for difficult interview questions (Kearns and Sullivan 2010), and will demonstrate serious commitment to teaching. If reflected on and modified over time it will become an opportunity for professional learning and development (Goodyear and Allchin 1998).

Tip 8

Reflect on your experiences and record formal reflection

Despite knowing that reflection underpins learning (Kolb 1984), and that reflection-on-action is considered a fundamental characteristic of professional practice (Schön 1983), reflection is the stage of experiential learning we seem least good at (Duley 1981). Compilation of an MEP can stimulate and facilitate this process. Moreover, reflection also drives expertise development, which cannot be attained purely by accumulation of experience. Instead, it requires *deliberate practice*: a sustained, planned, methodical, and deliberate approach to skill and/or knowledge development (Ericsson 2006). *Deliberate practice* demands identification of specific performance goals, a source of prompt feedback, and opportunity to practise tasks repeatedly (Ericsson 2004). Those wishing to develop expertise in medical education should seek opportunities for *deliberate practice* in this area. Use your MEP as a tool to reflect on performed educational activities, recognize areas for improvement, and select goals for *deliberate practice*, before seeking appropriate practice opportunities.

Learning *how* to reflect and provide evidence thereof also takes practice. As you reflect on your ongoing educational activities, experiment with different reflective techniques: just as there are many different learning styles (Coffield et al. 2004), there are also a wide variety of reflective styles and methods. Powerpoint presentations, group discussions, pro-formas, blogs, diaries, and audio-visual recordings are all valid reflective tools. Race (2006) and Moon (2004) offer questions and examples that will help to move your reflection beyond mere descriptions of an event, whilst Slee and Henderson (2005) illustrate the variety of forms that written reflective practice can take. Collect your reflections in your MEP. Over time you will develop solid reflective skills and preferences, which will support your *deliberate practice* and learning, and consequently catalyze your expertise development (Holyoak 1991).

Tip 9

Self-assess your abilities as an educator

Self-assessment is the process of judging ourselves, making decisions about our performance, and then deciding on

subsequent steps (Boud 1995). It is well recognized that individuals in many walks of life, doctors included (Davis et al. 2006), are poor at self-assessment. This probably reflects a “top down” approach to performance evaluation: we base our self-assessment on pre-conceived ideas about our abilities, and then find evidence to support this belief (Dunning et al. 2003). “Good” self-assessment requires a “bottom up” approach, where individuals systematically gather evidence about the quality of their practice, before comparing this with their self-perception (Gordon 1992). Ultimately, the aim is an externally *and* internally informed process of interpreting data about one's performance, which can then be compared with explicit or implicit standards (Epstein et al. 2008).

The demands for doctors to self-assess as part of their professional practice are growing (e.g. GMC 2010). Your MEP will form an ideal starting place to self-assess your ability as educator: external performance indicators gathered in your MEP could include anonymous feedback and evaluations from students, learner grades, assessment results, peer observation of practice, advice from a mentor, or comparison of skills with national standards such as the UK professional standards framework of the Higher Education Academy (2011). Additionally, you may complete and record specific self-assessment exercises such as those provided by the London Deanery (2012) or Petty (2016). External indicators can then be systematically compared and rationalized with your own internal perceptions and results from self-assessment exercises, providing a benchmark for reflective practice (tip 8) and rendering your MEP, a metacognitive training tool. Becoming competent at self-assessment will significantly improve your formulation of a personal development plan (tip 10): you will be better able to identify areas of strength, weakness and interest and, thus, set more realistic goals for your future development.

Tip 10

Include a personal development plan

Aspiring medical educators, through lack of experience, might find it difficult to know where to start when planning career development in this field. A personal development plan is a tool to effectively document the next steps in your career. We recommend you start by answering three questions:

1. What are your areas of interest in medical education?
2. What future responsibilities or career do you aspire to in medical education?
3. What development needs have your reflective practice and self-assessment generated?

Your answers will undoubtedly highlight activities that could support your development in these areas, and allow formulation of short- and medium-term goals. Select up to five goals, describe them clearly and concisely, and outline how to attain them. To be most effective, your personal development goals should be SMART: specific, measurable, attainable, relevant and time bound (Drucker 1955).

Review your goals regularly (we suggest on a six-monthly basis), and allow them to inform your choices when applying for and taking on new educational activities

or responsibilities. Your personal development plan is not meant to be static or pressurizing. Rather, use it as a dynamic tool to guide your career choices, achieve your goals and stop you from wasting time on activities that will prevent your interests from developing. Ask your mentor to review your personal development plan: his/her experience may offer new avenues for development that you have not yet considered.

Tip 11

Discuss your portfolio

Discuss your MEP with a colleague or mentor, ideally someone with an existing role in medical education. This does not need to be a current training supervisor or clinical faculty member, but should be someone you respect and trust. Discussion can be a powerful learning tool: it can promote “the development of knowledge, understanding or judgement among those taking part” (Bridges 1988, p. 17). Learning through discussion is active, inclusive and reciprocal, but requires an honest and trust-filled relationship between participants. Such an environment is an ideal place to request feedback on your MEP. Feedback itself can promote educational development: first, feedback can inform your future practice, and if positive can significantly catalyze learning (Race 1993). Secondly, adoption of feedback-seeking behavior is powerfully correlated to improved learning and professional development, not to mention patient care (Bose and Gijsselaers 2013).

Tip 12

Consider an electronic portfolio

The choice of how to create and maintain an MEP is individual, but it is worth considering an electronic, even online version. Online portfolios can be accessed at any location, and are easily backed-up, duplicated and printed. They are also useful for storing non-paper-based evidence, such as audio-visual material.

There is “growing recognition of the importance in using online communities of practice as a model for professional development, and in particular, to support teachers and educators in reflecting on their practice, in a collaborative and supportive learning environment” (Kirschner and Lai 2007, p. 129). Consequently, online MEPs are likely to become increasingly popular and integrated into such web-based communities of practice as educators interact, problem solve and share experiences online. It is easy to see how users could choose to share sections of their MEP for peer review (e.g. a teaching philosophy), or link to Web-based discussions which show evidence of reflective practice and enable demonstration of critical reflexivity “in a way that fosters and supports meaningful personal and professional development” (Woods and Sebok 2016, p. 83).

To date, there are no bespoke e-portfolios for medical educators and the varied nature of such portfolios means that one size is unlikely to fit all. There are growing numbers of Web-based, generic e-portfolio solutions (for example: www.mahara.org or www.pebblepad.co.uk) where users have the flexibility to design a portfolio that meets

their needs. Parslow (2009) notes that individuals increasingly favor such an approach as their experience of e-portfolios grows.

Concluding comments

A medical educator's portfolio is an essential resource for those interested in pursuing a career in medical education. A portfolio may take many forms, adopt a variety of structures and be put to a number of uses. In all cases it should be a dynamic document that promotes self-assessment and reflection, and allows users to plan their professional development.

Through this article, we have sought to demonstrate that compiling a medical educator's portfolio does not need to be onerous. If used regularly, it can become the most helpful of colleagues: one who remembers all your achievements and successes whilst supporting you in overcoming challenges that may arise in your career.

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