Portfolios: Learning and Assessment in Medical Education
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Objectives

- Define a portfolio and determine why it is important for professional development
- Review elements of a portfolio
- Discuss how a portfolio could be used in formative and summative assessment
- Learn how a portfolio can help support competency objectives
Educating the self-critical doctor

Using a portfolio to stimulate and assess medical students' reflection

Proefschrift

Ter verkrijging van de graad van doctor aan de Universiteit Maastricht, op gezag van de Rector Magnificus, Prof. dr. G.P.M.F. Mols, volgens het besluit van het College van Decanen in het openbaar te verdedigen op woensdag 25 juni 2008 om 16.00 uur

door

Erik W. Driessen
geboren op 28 oktober 1966, Wijchen
Portfolios

■ What is a portfolio?

■ What makes a portfolio different from:
  - a *curriculum vitae*
  - a career log

■ What is a dossier and how does it differ from a portfolio?

■ Are there different types of portfolios?
Portfolio Definition

“A portfolio is a collection of a student’s work, which provides evidence of the achievement of knowledge, skills, appropriate attitudes and professional growth through a process of self-reflection over a period of time”

Davis M.H. and Ponnampерuma G.G. 2009
Panacea?

As a way of Learning

Portfolios; life long learning

Tenure and Promotion

Assessment

Job Applications Appraisal

Recertification PDPs

Dr. David Snadden Portfolio Presentation July 2011
Portfolios...

- Are different from curriculum vitae and career logs in that they must contain a component of self-reflection on the contents—key for professional development.

- “Reflection is defined as the purposeful, deliberate revisiting of an experience to explore and extract the learning offered by the experience”

  Davis M.H. and Ponnampalam G.G. 2009
Dossiers

- Collection of evidence that support the academic activities of an individual including research, teaching and administration
- Includes the philosophies of the individual in the given domains
- May or may not be self-reflective
- Sometimes term is used interchangeably with portfolios
Portfolio Elements

- Depends on a number of different factors which are interdependent:
  - Type and level of the learner
  - Purpose of the portfolio
  - Structure of the portfolio
  - Medium of the portfolio
Portfolio Elements- Type and Level of the Learner

- Medical Student?
- Postgraduate resident?
- Academic Faculty?
- Physician in Community Practice?
Medical Student

- Evaluations/exam marks
- Case Reports/Narratives
- Checklist of Procedures
- Recordings of Clinical Activities
- Research Projects
- Publications
- Other Achievements
- Reflective Material
Postgraduate Resident

- Critical Incident Reports and What Was Learned
- Reflections on Successes and Difficulties
- 360 degree evaluations from allied health
Academic Faculty

- Narrative on scholarly activity
- Teaching philosophy
- Self-evaluation of strengths and weaknesses
Community Practitioner

- Practice Information and Reflection on Progress
- Analysis of Practice Data
- Peer, Allied Health and Patient Observations
- Continuing Medical Education- plan and reflection on lessons learned
- Committee participation
Portfolio Elements: Purpose of the Portfolio

- Learning Portfolio (Formative)
  - Using the portfolio as a tool for ongoing student development

- Assessment Portfolio (Summative)
  - Using the portfolio for the determination of success/failure at a particular course of study
Portfolio Elements: Contrast of the Different Portfolio Types

Learning Portfolio (Formative)
- Facilitation of learning
- May be unstructured
- Learner owns and selects the content
- Results are variable
- Mentorship
- Reflective
- Progression over time

Assessment Portfolio (Summative)
- Demonstration of achievement
- Must be structured
- Learner owns the content but must adhere to the structure
- Profile of learning outcomes
- Mentorship
- Reflective
- Progression over time
Portfolio Elements: Medium of the Portfolio

- Paper
- Electronic
- Somewhere in between
Portfolio Elements: Portfolio Structure

- Shopping trolley - anything goes
- Toast Rack - dividers, formal
- Spinal Column - overarching theme with divider categories
- Cake Mix - ongoing narrative that links theory to practice with reflection and plans
Use of the Portfolio in Formative Assessment

- Ongoing reflective assessment of learning experiences moving forward in time
- Can be used to provide a basis for the resident to have mentorship meetings with a faculty advisor for continuous improvement
- Can allow for the demonstration of scholar, professionalism and managerial competencies
Use of the Portfolio in Summative Assessment

- Can be used to determine success or failure of a specific course of study (RCPSC Area of Focused Competence Certificates)
- Can be evaluated using specific predetermined criteria
- However it is less personal and it may be less meaningful
- Difficult for the resident to be honest in self-evaluation
Use of a Portfolio to Support Competency Objectives in PGME

- **CanMeds 2005 Competencies**
  - Medical expert
  - Communicator
  - Collaborator
  - Manager
  - Health Advocate
  - Scholar
  - Professional

- **Key and Enabling Competencies**

- Could use the portfolio is either formative or summative assessment depending on the purpose

- RCPSC Area of Focused Competence Diplomas
Benefits to Using Portfolios to Evaluate Competency Objectives

- An evaluation over time
- More balanced method to evaluate the non-medical expert CanMeds roles
- Resident takes responsibility for their own learning tailored to their own needs and the needs of the profession
- Better ongoing assessment of individual training needs - early identification of problems
- Encourages regular meetings and interactions with a mentor
Challenges to Using Portfolios to Evaluate Competency Objectives

- Less uniformity in resident rotation planning
- Subjective - even if strict evaluation criteria are in place
- Education is needed for both residents and faculty regarding portfolio development and evaluation
- Need to define exact purpose
- Faculty mentorship is the key to its success or failure - should not be used as an instrument in isolation
- Medicolegal concerns
Conclusions

- Self-reflection is the key to any portfolio
- Portfolio elements depend on the type of learner, the purpose, the structure and the medium of the portfolio
- Portfolios can be used for formative and summative assessment but not for both simultaneously
- Portfolios can support the evaluation of competency objectives
<table>
<thead>
<tr>
<th>Activity</th>
<th>Participation / Reporting</th>
<th>Proactive/Creative Actions</th>
<th>Analytical/Reflective Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching</td>
<td>Participates in teaching.</td>
<td>Organizes, designs and/or initiates educational activities.</td>
<td>Seeks feedback in order to improve. Tailors teaching to learner’s needs.</td>
</tr>
<tr>
<td>Research</td>
<td>Demonstrates research activity.</td>
<td>Contributes to study design and execution, data analysis.</td>
<td>Knowledge translation. Applies research findings to drive policy change or to improve practice.</td>
</tr>
<tr>
<td>Professional Activity (Group)</td>
<td>Attends CPD events. Does committee work.</td>
<td>Organizes/initiates CPD event(s) and professional activities.</td>
<td>Articulates what was learned. Develops areas of expertise for future practice.</td>
</tr>
</tbody>
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References


- Snadden D and Thomas ML. AMEE Learning Guide No 11. Portfolio Learning in Medical Education