

Doctoral education – is it well aligned?

Professor Rachel Spronken-Smith
Dean, Graduate Research School
University of Otago

and
Sharon Sharmini
PhD Candidate
Higher Education Development Centre
University of Otago

Otago

“Could a [PhD] candidate aspiring to be an academic undergo a different examination process from someone who plans to work within government or private enterprise?”

The notion of alignment would suggest that different forms of assessment might be appropriate if candidates engaged in different learning experiences through their programme and that there were different aims for the programme outcomes”

Margaret Kiley (2009, 38)

Otago

Outline

- Background theory
- Outcomes for PhD graduates
- Ways to achieve alignment
- Discussion

Otago

Alignment in teaching

“If students are to learn desired outcomes in a reasonably effective manner, then the teacher’s fundamental task is to get students to engage in learning activities that are likely to result in their achieving those outcomes.”

(Schuell, 1986:429)

John Biggs (2003) included assessment in an **aligned** system of teaching

Otago

Constructive alignment



Biggs (2003).

Otago

Is alignment in doctoral education a new idea?

NOT really....

Mary Huba, John Schuh & Mack Shelley (2006) and Margaret Kiley (2009)

- Called for a closer alignment between the aims of doctoral learning and assessment
 - Critique the narrow focus on a dissertation as the sole assessment

BUT....

Otago

Outcomes-based or backwards design

Determine the graduate outcomes



Determine the assessment regime



Determine teaching and learning methods

Otago

For intellectual and emotional growth and pleasure
(Diana Leonard, Rosamunde Becker & Kelly Coate, 2005)

Training for academia

To become global citizens who can conduct socially responsible research (Maresi Nerad, 2009)

What is the purpose of a PhD?

Intellectual virtues (Susan Mowbray & Christine Halse, 2010)

Training the next generation of researchers

Otago

Core outcomes for PhD graduates

- Critical thinking
- Analytical ability
- Problem-solving
- Time management
- Project management
- Ethical behaviour
- Effective communication
- Strong interpersonal skills

Otago

Career-dependent outcomes

Academia	Research position	Business	Government
Ability to publish ++	Ability to publish ++	Entrepreneurial ++	Teamwork ++

Alignment - Academia

Outcomes	Teaching and learning methods	Assessment regime
Ability to publish	Publishing – mentoring candidates	Paper accepted for publication
Ability to write research grants	Including candidates in grant application process	Research grant application
Ability to teach	Encouraging teaching and evaluation of teaching	Teaching portfolio

Otago

Alignment - Business

Outcomes	Teaching and learning methods	Assessment regime
Teamwork	Collaborative research	Project output Peer evaluation of contribution to the team
Entrepreneurial	Internship, courses on entrepreneurship	Project, reflective critique, mentor testimonial
Financial management	Workshops or short courses and practice in managing finances	Preparation and/or management of project budget
Research translation	Workshops or short courses on genres of communication	Variety of communication formats

Implications for Doctoral Education

- Upon entry to PhD
 - Discussion about career plan
 - Skills audit
 - Professional development plan – for PhD and beyond
 - Target appropriate opportunities
 - Build up portfolio of evidence
- During candidate – progress reporting
 - Research progress
 - Professional development

Otago

Implications for assessment of PhDs

- Should we persist with the narrow focus on a thesis (and perhaps an oral examination)?
- Or is a rethink required?
 - flexible, portfolio based approach

Otago

Portfolios

Common in professional doctorates

Benefits (Thomas Cyr & Rodney Muth, 2006, p219):

- They support full inclusion of students in their own learning
- They support the apprenticeship model of instruction and encourage collegiality among students and their mentors
- They engage the student and mentor in setting criteria for successful completion of a programme
- When appropriately designed they align clearly with the principles of effective assessment by providing frequent and effective feedback to students so are educative as well as evaluative

Otago

Portfolios for PhDs

- **Summative:** SSHRC (2013) Suggesting reconceiving assessment for PhDs in Humanities to be a portfolio
- **Formative:** RSVP – Research Student Portfolio Development (Catherine Manathunga, & Paul Lant 2006; Manathunga et al., 2007)
 - Situates research students' graduate attribute development within student's individual research projects
 - Framework within which to organise evidence of their professional development

Otago

Discussion points

- Is a portfolio approach for assessing PhDs too radical for a conservative academy?
- If not then:
 - Should portfolios be formative, summative or both?
 - Should portfolios have core elements (that would be common across PhDs) and optional elements (according to planned career pathway)?

Otago

References

- Cyr, T. & Muth, R. (2006). Portfolios in doctoral education. In Maki, P. & Borkowski, N. (Eds) *The Assessment of Doctoral Education*. Sterling, VA: Stylus, p215-238.
- Huba, M., Schuh, J. & Shelley, M. (2006). Recasting doctoral education in an outcomes-based framework. In Maki, P. & Borkowski, N. (Eds) *The Assessment of Doctoral Education*. Sterling, VA: Stylus, p.239-272.
- Kiley, M. (2009) Rethinking the Australian doctoral examination process. *Australian Universities Review* 51(2), 32-41
- Leonard, D., Becker, R. & Coate, K. (2005). To prove myself at the highest level: The benefits of doctoral study. *Higher Education Research & Development*, 24(2): 135-149.
- Manathunga, C. & Lant, P. (2006) How do we ensure good PhD student outcomes? *Education for Chemical Engineers* 1(1): 72-81.
- Manathunga, C. Lant, P. & Mellick, G. (2007). Developing professional researchers: research students' graduate attributes. *Studies in Continuing Education*, 29(1): 19-36.
- Mowbray, S. & Halse, C. The purpose of the PhD: Theorising the skills acquired by students. *Higher Education Research & Development*, 29(6): 653-664.
- Nerad, M. (2009). Confronting common assumptions: Designing future-oriented doctoral education. In Ehrenburg, R. & Kuh, G. (Eds) *Doctoral Education and the Faculty of the Future*. Ithaca: Cornell University Press
- SSHRC (2013) The future of graduate education and training in the humanities: A discussion paper

Otago