

2<sup>nd</sup> UNICA MASTER CLASS:  
**Supervision in Doctoral Education**  
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**Recent developments in enhancing doctoral supervision**  
*Canada, the US and Australia*

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University of British Columbia 2007 – 2011  
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*My approach has been*

- Student focussed – the ‘student experience’
- Outcome driven – get and use GOOD data to drive change
- Goal – to provide the **best possible educational experience** for each doctoral student, so that they successfully complete an excellent and relevant academic program in a timely fashion, with embedded and additional opportunities to develop skills & competencies for productive future employment in a variety of careers
- Achieving this goal will also meet the needs of the **other key stakeholders** in doctoral education – *institutions, academic disciplines, professions, governments, industry and society*



### ***International context – similarities***

Widespread agreement on the nature of the **PhD**

- the PhD should contribute to knowledge through **original research**,
- PhD graduates are also expected to have **substantial knowledge in their area** and
- increasing agreement that PhD training should include development of **transferable skills/competencies**.

However, '**professional doctorates**' are *highly* variable.



### ***However huge country differences in***

- **policies** – federal vs. provincial vs. local
- **consistency** cf. variability – institutional independence cf. government oversight
- **organization & funding** – central vs. distributed, source/amount of \$\$s
- content/structure/length of **programs** – extremes probably UK & US
- **examination/assessment** – internal vs. external thesis examiners
- other **expectations** re. levels of TA & RA work and thus 'F/T' or P/T?
- **accountability** e.g. completion rates & times, link to funding/resources
- **oversight & quality assurance** – equity, transparency, efficiency, use of guidelines & frameworks



## 1. The Australian university system

- program **structure** similar to the UK – 3-4 + 1-2 + 3-4 or 3 (+ 1) + 4
- **funding** federal, institutional & student fees – but federal funding now down to often < 20% (cf. Canada about 50%)
- increasing income in recent years from **international recruitment**
- institutions often ‘waive’ fees for top overseas students
- Research Training Scheme -> **consistent support** across Australia for *research* students & programs (M & D)
- *considerable* government quality & regulatory **oversight/control** (very hands-on) – e.g. define ‘F/T’, require **at least two external** examiners
- well established **graduate (research) schools** & an effective national network – DDOGS
- excellent & highly constructive **graduate student societies\*\***



### **Australian Research Training Scheme (RTS) – since 2001**

#### *Tuition*

- federally-funded tuition (high & low cost) paid to universities (4 years for doctoral or 2 for research masters)
- **based on outcomes – 50% completions**: 40% research income: 10% publications
- led to increased **transparency** of graduate research funding & universities’ focus shifted from ‘load’ to ‘completions’
- plus fee-free **scholarships** for **international** students

#### *Living stipends*

- **living stipends** (~\$20,000p.a. for 3.5 years)

So ~ all domestic research students pay no tuition fees & most full-time students also have adequate living stipend scholarships

- but other ‘**WORK**’ strictly limited (max 8 hrs/week)



## 2. The Canadian system

- **program** structures more similar to the US (e.g. 2 years solid coursework at beginning of PhD) – but some differences, e.g. require at least **one external examiner** – “4 + 2 + ~ 5.5”
- **funding** largely **provincial** (& institutional) rather than federal
- funding based on enrolments (**load**) rather than completions (can lead to perverse outcomes)
- leads to **provincial strategies** for both graduate programs & student support (so less consistent than Aus but more so than US)
- considerably greater reliance on **TA & RA** funding of students (= work!)
- less **national** quality or regulatory **oversight** - more independent than Aus, less so than US



## 3. The US

- **programs** highly variable (from great to awful) but usually require 2+ years coursework at beginning of PhD.
- universities essentially independent & can do whatever they think they can 'sell'
- considerable reliance on **TA & RA** funding of students (Debra's comment)
- usually **internal examiners**, including the supervisory committee
- average **TTD** is longer - often 8-9+ years
- **funding** a real challenge for most universities because of the GFC → reduced government funding and endowments underwater
- no nation-wide quality assurance of doctoral programs
- good 'research' by CGS & others, but no traction nationally to improve practice or establish national standards



## ***Recent BIG issues in doctoral education...***

- ✧ *IMPROVING OUTCOMES*
- ✧ *ENSURING EFFECTIVE GOVERNANCE*
- ✧ *MANAGING RESOURCES STRATEGICALLY*
- ✧ *MEASURING QUALITY*
- ✧ *DEVELOPING TRANSFERABLE SKILLS*



## ***IMPROVING OUTCOMES***

Conduct surveys with clear purpose – at UBC:

- Completions
- Climate
- Supervision
- the Student Experience

Then use the data to drive change.....

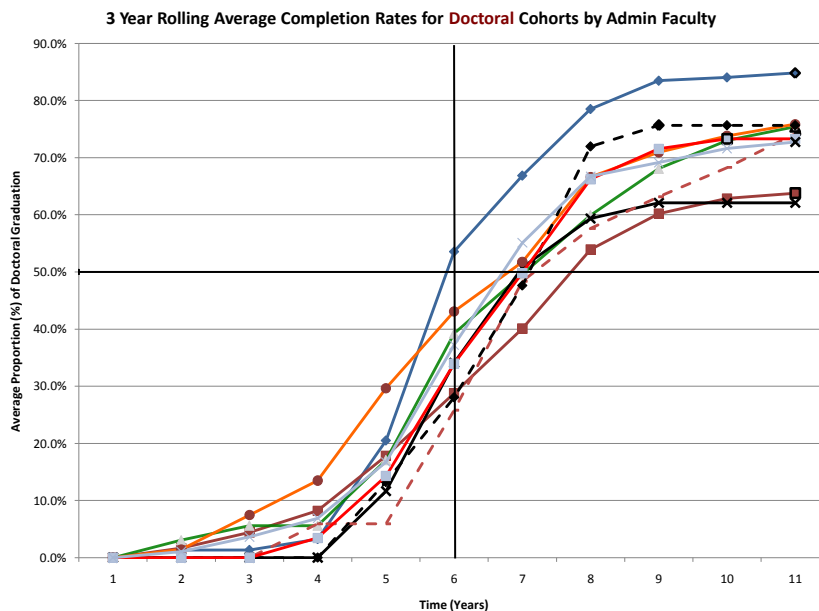


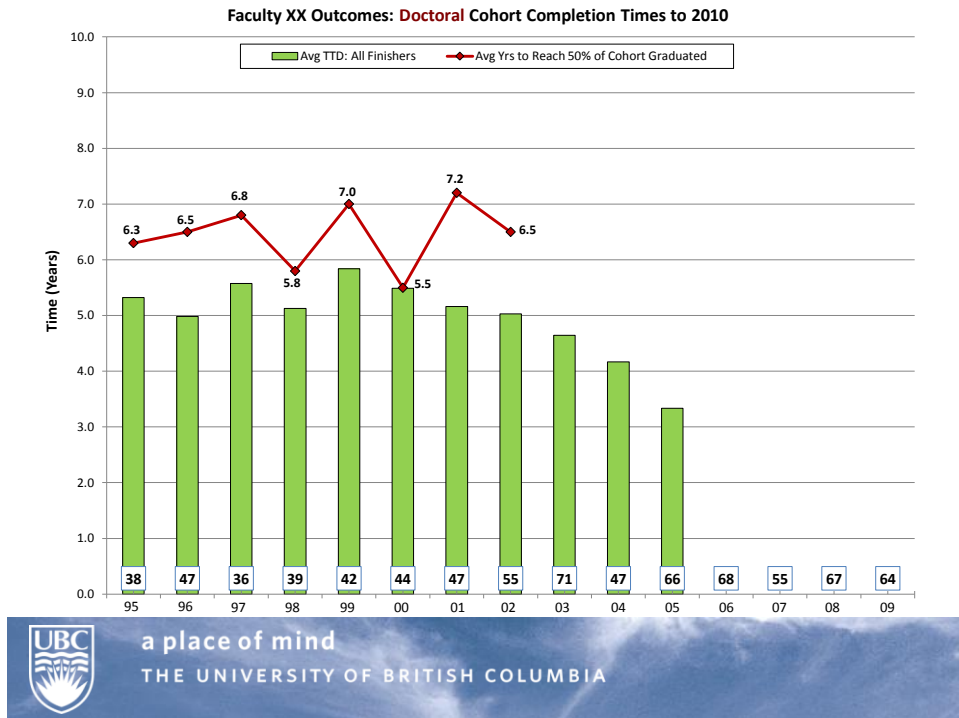
## Improving completion rates

- Big initiative in Australia for years – because of RTS
- Research shows selection, strict milestones, co-supervision, full-time enrolment, presence ON campus, cohort climate, funding & resources linked to better completions.
- CGS Completions project → also identifies effective actions
- 'Good' & 'bad' attrition – measure rates *after* 1<sup>st</sup> major milestone (and make the milestone 'rigorous')

### UBC 'Completions Rates & Times Report'

- Many supervisors were *just not aware* of low completion rates
- Link to resources/scholarships !





## Selecting the right students

- Good selection is NOT just about grades in courses
  - have they **research experience**?
  - do they **understand** what is required?
- The **4 Rs** – success usually follows when you get
  - the **R**ight student
  - in the **R**ight project
  - with the **R**ight supervisor(s)
  - at the **R**ight time.
- And know the university's **REAL capacity** for students
  - which research areas?
  - sufficient resources?
  - available, capable and enthusiastic supervisors?



## *Improving supervision*

*Increasingly require* supervisor 'training' – e.g. mandatory for new, then update every five years....

*Find out through*

- *Student satisfaction surveys – annually*
- *Exit surveys – for completers & **non-completers\****
- *Outcomes analyses*  
e.g. *Completions Rates & Times*

*Actions*

- Circulate data analyses widely
- Develop *and circulate* Supervision Policy & Responsibilities
- Provide 'supervisor programs' – mandatory for new supervisors & special topic workshops or 'master classes' for others
- Provide support and training also for staff



a place of mind  
THE UNIVERSITY OF BRITISH COLUMBIA

## **ENSURING EFFECTIVE GOVERNANCE**

- **Accountability**
  - accountability to governments (and other funders)
  - efficiency, consistency, effectiveness & transparency in procedures
  - equity for students
- **Policies & Procedures**
  - **awareness** of these
  - ensure **compliance**, link compliance to funding/resources?
  - '**Benchmark**' for improvement – e.g. Universitas 21 instrument
  - **anticipate change** – forward-looking development of policy & procedures (10+ years time frame)



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## MEASURING QUALITY

### *An important issue in Australia*

- *but not really on the radar in North America*

The quality of the graduate educational experience depends on the **inputs** of

- academic program content and resources
- teaching and supervision
- administrative processes & financial support

and it can be inferred from **output** measures such as

- graduate student satisfaction
- completion rates and times
- products of the students' research – dissertation, publications
- skills acquisition
- program evaluations



### *Some 'measurable' indicators of quality*

		relevance/importance	
		high value	lower value
ability to provide	easy	<ul style="list-style-type: none"> <li>. student satisfaction with               <ul style="list-style-type: none"> <li>- supervision</li> <li>- resources</li> </ul> </li> <li>. number of 'publications' from thesis</li> <li>. conference presentations (esp. oral)</li> </ul>	<ul style="list-style-type: none"> <li>. current student load</li> <li>. completion times</li> </ul>
	moderate	<ul style="list-style-type: none"> <li>. completion outcomes               <ul style="list-style-type: none"> <li>- timely completion rates</li> <li>- post-confirmation/candidacy completion rates</li> </ul> </li> <li>. attrition rates &amp; stage of withdrawal</li> <li>. acquisition of attributes &amp; skills</li> <li>. other outputs – 'Knowledge Exchange'</li> </ul>	<ul style="list-style-type: none"> <li>. employment/career outcomes</li> <li>. benchmarking of processes</li> </ul>
	difficult	<ul style="list-style-type: none"> <li>. quality of publications/patents from thesis</li> <li>. quality of theses and papers</li> <li>. graduate satisfaction (X years out)</li> <li>. employer surveys</li> </ul>	



### **Aspects of quality typically overseen by Graduate Research/Doctoral Schools**

- selection of students & transition
- student funding & scholarships
- facilities & resources available
- program structure, content, approval & review
- flexibility & mobility within & between programs
- monitoring academic progress
- evaluation of outcomes & accountability at institutional level
- assessment & examination
- developing excellence in research supervision
- ensuring transparency & equity in graduate administrative procedures
- handling grievances
- professional & transferable skills
- ethics, integrity & global awareness
- proactive policy development & procedural oversight



### **MANAGING RESOURCES STRATEGICALLY**

*Linking distribution of resources to outcomes.....*

- All universities facing declining government funding and many endowments still underwater
- Nevertheless, Australian RTS system – recently increased funding for graduate research – *still firmly based 50% on completions*
- UBC graduate research scholarships
  - was able to 'triple' doctoral funding & for four years
  - moving slowly to link 'completions' and resources
- Not just money – other resources also – infrastructure, willing capable faculty and sufficient staff support
- 'Low standing crop – high turnover' strategy.....



## **DEVELOPING TRANSFERABLE SKILLS**

50% of PhD students DON'T go on to academia or research

- *Canadian research agencies – 2007 'Key Professional Skills for New Researchers' –> eight professional skills:*
  - Communication and interpersonal skills
  - Critical and creative thinking
  - Personal effectiveness
  - Integrity and ethical conduct
  - Teaching competence
  - Leadership
  - Research management
  - Knowledge mobilization and knowledge translation



- *Australia – similar since 2000 and also some funding for training in 'commercialization of research'*
- *US – through CGS promote successful PFF and Prof Science Masters programs*
- *UK – VITAE is seen as best practice globally in its provisions for developing researchers*

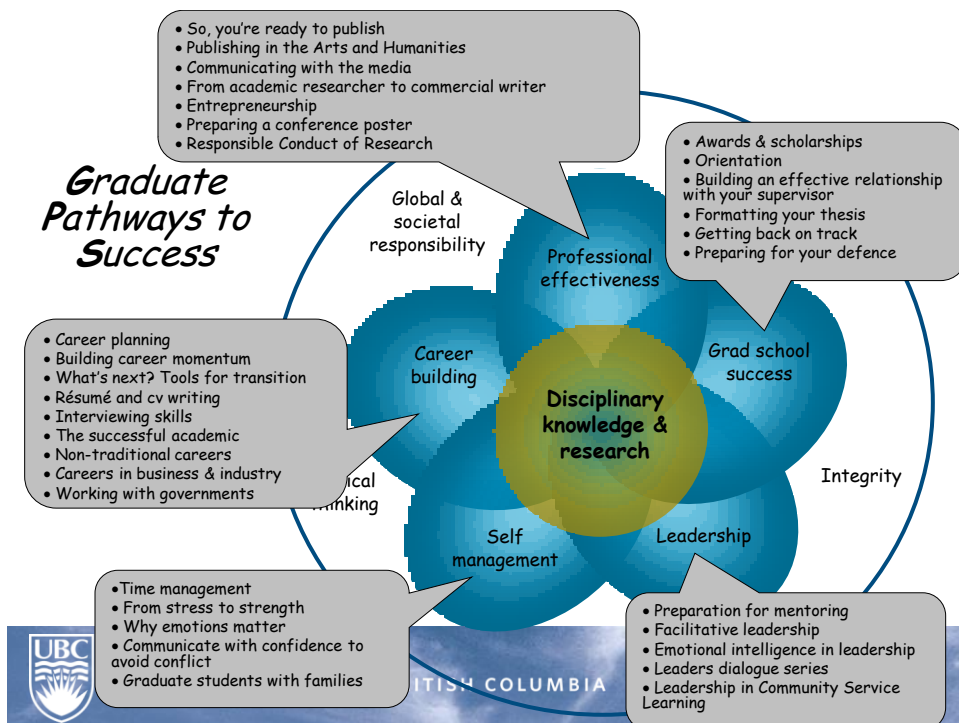


## Academic, professional & personal development program at UBC:

**Graduate Pathways to Success (GPS)** – a series of *non-credit* workshops, seminars and other activities designed to complement the academic curriculum

Framed around five themes

- Success in Graduate School
- Self Management
- Professional Effectiveness
- Career Building
- Constructive Leadership



## Doctoral Student Attrition:

### PhD's

- **who enters**
- **who doesn't complete**
- **and why not**

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*Dean, School of Graduate Studies*  
*The University of Melbourne*



## *Issues by stage of candidature*

### Selection & entry

- have we got them right?
- our selection criteria = 'likelihood of success'
- the four 'R's – *right* student, supervisor, project & time
- balancing opportunity against certainty in selection
- what are the purposes of doctoral study? – for the student, university, community, government, research...

### Getting started

- 'transition' programs
- establishing clear responsibilities and agreed expectations
- identifying student needs/gaps early

### During candidature

- keeping students on track
- maintaining communication – structured & informal
- Identifying obstacles
- identifying 'students at risk'
- deciding when to quit & when to persist

### Completions Issues

- career planning
- letting go – moving on



**University of Melbourne**  
**'Study of non-completions'**  
*(Brennan, James, Clarke; 2002)*

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Decision to withdraw appears to be related to

- an accumulation of factors rather than a single factor
- open ended Q → pressure of work & ran out of time
- ranking list → competing demands, quality of supervision, intellectual isolation
- supervision rarely the main factor (but often contributing)
- doubts often felt (but not spoken) in first year
- what would have helped? – more time\*\*, more supervisory support, more money/scholarship

Also concluded

- inadequate selection/induction processes re. *required commitment*
- confirmation at one year inconsistently conducted



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**Recommended areas of action:**

- better managing candidates expectations and the selection process
- strengthening formulation of the research project
- tightening the confirmation process
- improvement of processes later in candidature

